

South African Medical Journal

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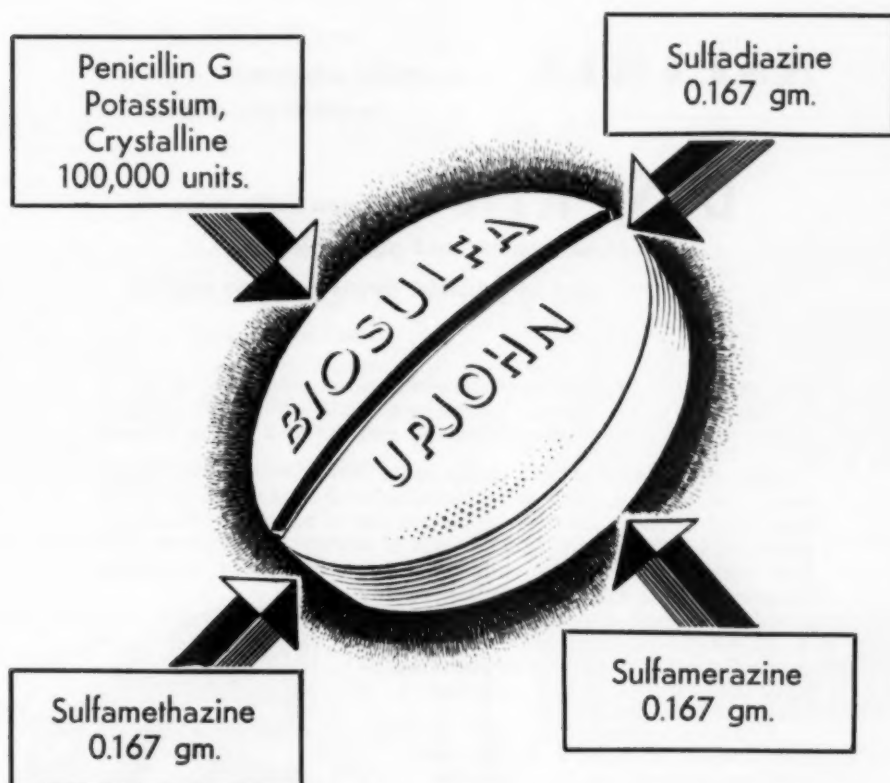
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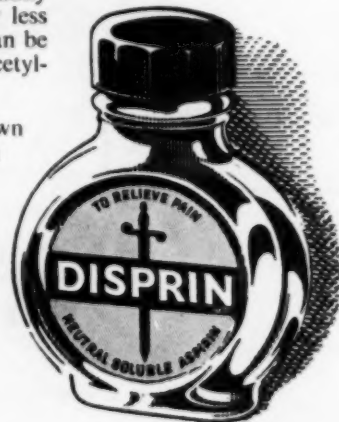
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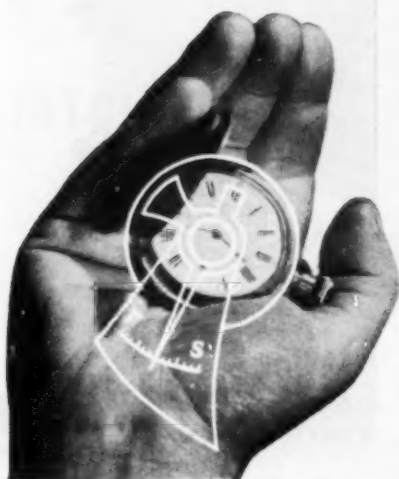
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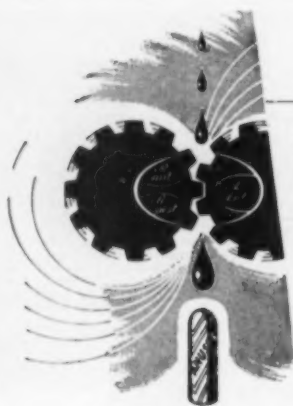


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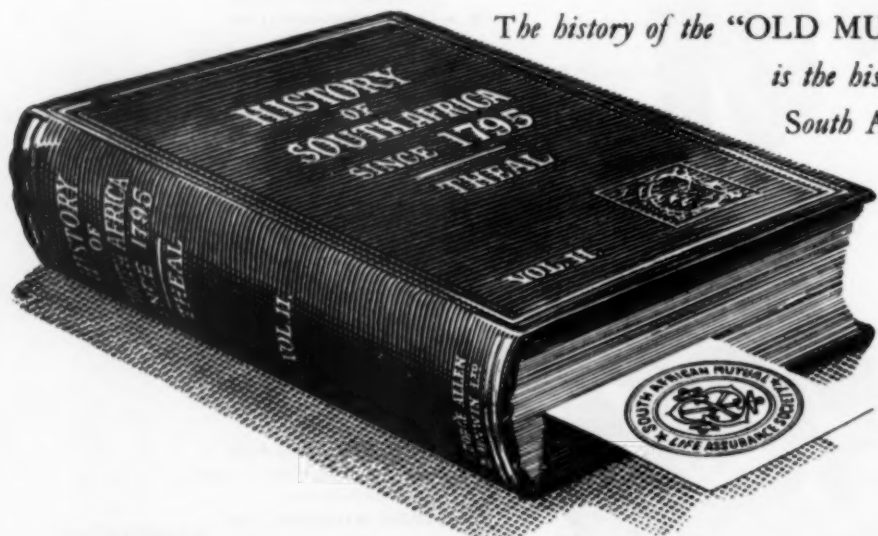
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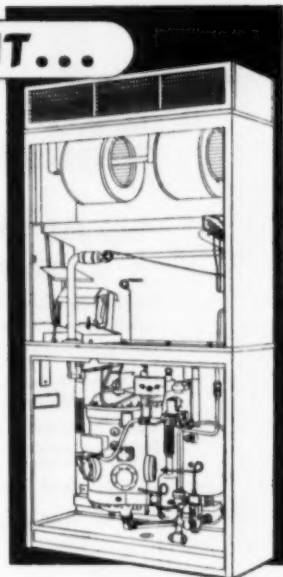
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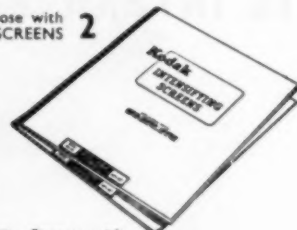
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DIE TAAK VAN DIE SELKUNDE IN DIE BEVORDERING VAN GEESTESGESONDHEID*

PROF. A. J. LA GRANGE

Universiteit van Pretoria, Pretoria

SAMEHANG MET MODERNE GENEESKUNDIGE BEGRIPPE

Die taak van die sielkunde in die bevordering van geestesgesondheid hang op die nouste wyse saam met die ontwikkeling van nuwe begrippe en insigte, met betrekking tot die vraagstuk van gesondheid in die algemeen.

Die vernaamste kenmerke van die moderne geneeskundige begrippe is onder andere:—

1. Die verwerping van die dualistiese opvatting van gees en liggaam en die aanvaarding van die standpunt dat die pasiënt, as 'n volkome persoonlikheid liggaamlik en geestelik reageer.

2. Dat siekte gesien word as 'n simptoem van die reaksie van die totaalpersoonlikheid in al sy aspekte op prikkels, wat van buite af op hom inwerk.

3. Dat die oorsake van 'n bepaalde siektebeeld nie uitsluitlik gesoek word in die aanwesigheid van een of ander siektekiem of organies-patologiese toestand nie, maar dat die kernvraag is: Watter erflikheids- en omgewingsfaktore het meegewerk om die bepaalde persoon vatbaar te maak vir die besondere siektebeeld of reaksiewyse wat hy openbaar?

4. Dat geneeskundige maatreëls nie beperk word uitsluitlik tot pogings om deur middel van medisyne of operasies, sekere chemiese of fisiese veranderinge in die liggaam tot stand te bring nie, maar dat daar gepoog word om veranderinge teweeg te bring in die persoon se totale fisiese en psigiese reaksiewyse op sy omgewing en waar nodig word gepoog om veranderinge in die omgewing te maak. In hierdie opsig gaan die nuwere begrippe van die geneeskunde duidelik in die rigting van sielkundige, sosiologiese en opvoedkundige opvattinge.

BEKLEMTONG VAN PREVENTIEWE GENEESKUNDE

Die nuwe oriëntering van die geneeskunde tot die vraagstuk van siekte en gesondheid in die algemeen, spruit voort uit die hedendaagse beklemtoning van preventiewe geneeskunde.

Die invloed van hierdie nuwe rigting, blyk veral uit die feit dat die geneeskunde geleidelik besig is om sy aktiwiteitsgebied tot feitlik alle sfere van die lewe uit te brei.

* Referaat gelewer op die Jaarvergadering van die Nasionale Raad vir Geestesgesondheid te Pretoria, 11 September 1951.

Een van die nuutste vertakings van die geneeskunde is, bv. die sosiale geneeskunde, waarby ingesluit word die studie van alle sosiale, ekonomiese, industriële en opvoedkundige wantoestande, wat die gesondheid van die mens beïnvloed en die treffing van maatreëls om sodanige toestande te verbeter.

Die uitbreiding van sy verantwoordelikheid tot die voorkoming van siekte en die gevolglike uitbreiding van sy aktiwiteite tot feitlik alle fases van die lewe, het die moderne geneeskunde voor die groot vraagstuk te staan gebring, nl.: Hoe kan die kolossale taak, wat vandag op die skouers van die geneeskunde rus, op die doeltreffendste wyse aangepak en uitgevoer word?

In die beplanning om 'n oplossing vir hierdie vraagstuk te vind, is daar blykbaar vandag 'n tweeledige ontwikkeling aan die gang, naamlik:—

1. Pogings tot samesnoering en koördinerende van die werk van alle gekwalifiseerde persone, wat op een of ander wyse op die breë terrein van gesondheidsdienste bedrywig is; hieronder sal kliniese sielkundiges ingesluit word.

2. Pogings tot hervorming van die opleidingstelsel, sodat die aard en inhoud van die opleiding aanpas by die eise van die nuwe taak wat vandag aan die geneesheer gestel word. Die insluiting van sielkunde as 'n verpligte vak in die mediese kursus tree in hierdie verband op die voorgrond.

SELKUNDE AS 'N GENEESKUNDIGE VAK

Die vernaamste faktore wat die aandag op die sielkunde as 'n geneeskundige vak gevestig het, is onder andere:—

1. Die resultate van die navorsingswerk in verband met die emosionele lewe van die mens. Ontdekkings in hierdie verband het aanleiding gegee tot die ontstaan van die moderne psigosomatiese rigting in die geneeskunde.

2. Die resultate wat behaal word met psigoterapeutiese metodes, wat op psigodiagnostiese studies en persoonlikheidsontledings gebaseer is.

3. Die ondervinding wat veral gedurende die tweede wêreldoorlog opgedoen is, toe talle kliniese sielkundiges saamgewerk het met dokters en psigiaters in verband met die diagnose en behandeling van die duisende soldate, wat as gevolg van senu-instortings in die militêre hospitale beland het.

4. Die ondervinding wat na afloop van die oorlog, veral in die V.S.A. opgedoen is, toe kliniese sielkundiges onmisbare dienste gelewer het in verband met die sosiale heraanpassing van die teruggekeerde soldate.

GRONDSTELLINGS

In die lig van die ontwikkelings wat daar tans op die gebied van die geneeskunde aan die gang is, kan die volgende algemene grondstellings geformuleer word:—

Geestesgesondheid is nie 'n selfstandige vertakking nie, maar 'n fundamentele aspek van die algemene geneeskunde. In enige program van sowel preventiewe as van algemene gesondheidsdienste, moet die bevordering van geestesgesondheid 'n fundamentele plek inneem.

Somato-mediese, sosiologiese en opvoedkundige maatreëls is sonder twyfel van groot belang, maar dit is nog glad nie voldoende nie. Die siektes, wat ontstaan as gevolg van wantoestande met betrekking tot intermenslike verhoudings, kan nie deur die manipulerings van fisiese en omgewingstoestande alleen voorkom word nie. Wantoestande, as gevolg van ongesonde menslike verhoudings, word in alle faases van die samelewing en onder alle soorte van omgewingstoestande aangetref. Ons tref dit aan in die huisgesin, in die huwelikslewe, in die beroepslewe, in die nywerheid, in die kerk en in die skool.

Die ou slagspreuk, 'n Gesonde gees in 'n gesonde liggaam', het al die klem op die *liggaam* laat val met die veronderstelling dat as jy maar die liggaam gesond hou, die gees vanself gesond sal bly. Op grond van die kennis wat deur ervaring en navorsing in resente tye opgedoen is, blyk dit dat die klem in die ou slagspreuk verskuif moet word na die *gesonde gees*. As ons in die eerste instansie sorg vir 'n gesonde geestestoestand, sal dit met die gesondheid van die liggaam vanself tereg kom.

Met die beklemtoning van geestesgesondheid, as een van die vernaamste fundamentele aspekte van die algemene gesondheid, is dit duidelik dat die taak van preventiewe geneeskunde so 'n uitgebreide omvang aangeneem het, dat dit vir geen mediese dokter, selfs met die ruimste moderne opleiding, ooit moontlik kan wees om die taak na behore te behartig nie.

Hierdie stelling volg uit die feit dat geestesgesondheid 'n uiters ingewikkelde en veelsydige vraagstuk is. Die oorsake van geestesiektes is vir die grootste deel geleë in faktore wat buite die gebied van die geneesheer val; dit lê, nl., meesal in faktore soos die geestesamestelling van die individu, wat die resultaat is van sowel erflikheids- as omgewingsinvloede; die struktuur van die samelewing, die intermenslike verhoudings binne en buite die huisgesin, in die kerk en in die skool.

Die ORGANISASIE VAN GEESTESGESONDHEIDSDIENSTE

Op grond van die uiteenlopende aard van die oorsake van geestesiektes is dit duidelik dat doeltreffende dienste op die gebied van geestesgesondheid die koördinerende vereis van deskundige kragte uit minstens die volgende vyf professionele rigtings, nl. algemene geneeskunde, psigiatrie, kliniese sielkunde, sosiologie (met insluiting van maatskaplike werk) en opvoedkunde.

Dit beteken dat daar georganiseerde kliniese spanne in die lewe geroep moet word wat behoort te bestaan uit minstens een algemene geneesheer, een psigiater, een

kliniese sielkundige, een opvoedkundige en een sosioloog plus 'n voltydse sosiale werker.

PRAKTIESE MOEILIKHEDE

1. *Verantwoordelikheid by Spanwerk.* Een van die onmiddellike praktiese moeilikhede wat met die instelling van georganiseerde spanne op die voorgrond tree is wie van die verskillende deskundiges moet vir die hele span verantwoordelik wees?

Hierdie moeilikheid is in werklikheid nie so groot as wat dit oënskynlik lyk nie. Die grond-idee van 'n span is immers dat elke lid op sy eie gebied gelyke status met elk van sy medeledes sal hê. Daar kan by die aanvaarding van 'n ware spannees nie so iets soos meerderes en minderdes wees nie. Indien dit bv. uit 'n bepaalde ondersoek sou blyk dat die behandelingsmaatreëls wat nodig is hoofsaaklik in die rigting van die een of ander van die besondere aspekte moet gaan—medies, psigiatrie, sielkundig, sosiologies of opvoedkundig—sal die taak van behandeling, volgens gesamentlike besluit van die hele span, aan die aangewese lid van die span opgedra word.

Om behoorlik te fungeer, sal dit egter tog nodig wees dat een van die lede as die ere-hoof van die span aangewys moet word. Volgens my persoonlike mening is die aangewese persoon wat hierdie funksie moet vervul die mediese dokter. Per slot van saak is hy die persoon wat kragtens die aard van sy opleiding in eerste instansie die verantwoordelikheid vir die gesondheid van die gemeenskap in al sy aspekte moet dra en wat as sodanig deur die publiek erken word.

2. *Die Psigiater en die Kliniese Sielkundige.* 'n Ander praktiese moeilikheid wat egter ook meer oënskynlik as werklik is, is die afbakening van die pligte en verantwoordelikhede van die psigiater en die kliniese sielkundige as spanlede.

Tussen hierdie twee professies moet daar noodwendig 'n mate van oorleueling bestaan, maar aan die een kant van die gemeenskaplike gebied is daar tog 'n terrein waarop, uit die aard van sy opleiding, slegs die psigiater in staat is om die beste dienste te lewer; aan die ander kant is daar 'n terrein waarop, uit die aard van sy opleiding, slegs die kliniese sielkundige in staat is om die beste dienste te lewer.

Die vernaamste taak van die psigiater lê in die ondersoek en behandeling van persone by wie die geestesafwykings van so 'n ernstige aard is, dat hulle aktuele geneeskundige aandag vereis. Dit sal meesal gevalle wees wat vir 'n tydlank hospitalisering nodig het, of wat nie sonder die aanwending van fisiese metodes, soos bv. skokterapie, operasies of chemiese geneesmiddels, gehelp kan word nie.

Die vernaamste taak van die kliniese sielkundige aan die ander kant lê in die sielkundige ondersoek en psigoterapeutiese behandeling van gevalle wat medies gesond bevind is, maar wat een of ander vorm van wanaanpassing, gedragsafwyking of simptome van 'n neurotiese aard openbaar. Hierdie verskynsels is gewoonlik die vroeë voorlopers van latere ernstige geestesafwykings. Deur vroegtijdige ontdekking en gepaste behandeling deur die kliniese sielkundige, kan sulke ontwikkelings in die beginstadium gestuit word en kan ernstige moeilikhede sodoende voorkom word.

Ook in verband met ernstige gevalle kan die hulp van die kliniese sielkundige vir die psigiater van groot waarde

wees. Die toepassing en die interpretasie van die resultate van psigodiagnostiese en ander sielkundige toetse, moet beskou word as die besondere funksie van die kliniese psigoloog. Dit is werk waarin hy op grond van intensiewe opleiding, 'n hoë mate van bedreweheid besit.

Die sielkundige gegewens wat hy in verband met ernstige gevalle kan verskaf, kan vir die psigiater op verskillende maniere van waarde wees.

(a) Eerstens, dit kan hom help in verband met differensiële diagnose. Dit is bv. moontlik om, met behulp van sielkundige toetse, vas te stel in hoeverre daar die moontlikheid van 'n neurologiese verstoring, soos 'n gewas op die brein, aanwesig is.

(b) Tweedens, dit kan hom help by die keuse van die beste metode van terapie. Deur middel van sielkundige toetse is dit moontlik om vas te stel watter gevalle die beste sal reageer op 'n bepaalde metode van terapie.

(c) Derdens, dit kan hom help om die waarde van die resultate van sy behandelingsmetodes oor verskillende tydperke vas te stel.

Verder is die dienste van die kliniese sielkundige baie noodsaaklik in verband met ernstige gevalle wat in so 'n mate herstel het dat hulle uit die hospitaal of verpleeg-inrigting ontslaan kan word. Sulke persone het dikwels verdere sielkundige hulp nodig om weer opnuut as gesonde mense in die samelewing aan te pas.

Indien daar iemand sou wees wat meen dat die kliniese psigoloog op grond van sy nederige dienste in 'n minderwaardige posisie teenoor die psigiater te staan kom, dan maak hy myns insiens 'n fout. Hy lewer immers dienste wat uit die aard van sy opleiding deur niemand anders ewe goed gelewer kan word nie. Indien hy begerig sou wees om dieselfde dienste as die psigiater te lewer, sou ek hom aanraai om eers ook die volle mediese kursus te voltooi en die grade M.B., Ch.B. te verwerf. Hy sal dan uit die aard van sy opleiding bevoegd wees om net soos die psigiater, fisiese behandelingsmetodes toe te pas of voor te skryf.

DIE PLEK VAN DIE SIELKUNDE OP DIE WYERE TERREIN VAN GEESTESGESONDHEID

Tot sover het ek my in hoofsaak bepaal by die bydrae wat die kliniese psigoloog kan lewer wanneer hy saam met dokters, psigiaters en andere as lid van 'n kliniese span optree.

Ter afsluiting, moet ek nog kortliks melding maak van die plek wat die sielkunde in die wyere terrein van geestesgesondheidsaktiwiteite, wat in hoofsaak daarop toegespits is om die vraagstuk by sy oorsprong aan te pak.

Dit word lank reeds beseef en in die praktyk toegepas, dat die beste metode vir die bevordering van liggaamlike gesondheid toegespits moet wees, enersyds, op die opbouing en versterking van die weerstand teen die aanslae van siektekiem en, andersyds, op die verwydering of beheer van uiterlike toestande wat vir die ontstaan en verspreiding van siektekiem verantwoordelik is.

Wat weerstand betref, word die aandag bestee aan gesonde voeding en aan opbouwende liggaamlike aktiwiteite—liggaamsoefening en sport. Met betrekking tot die beheer van die broeiplekke van siektekiem word aandag geskenk aan die instelling van sanitêre maatreëls en aan isolasiemaatreëls wat die verspreiding van siekte deur aansteeking voorkom.

Indien ons enige hoop op sukses wil koester in verband met pogings om die geestesgesondheid van ons bevolking op die doeltreffendste wyse te bevorder, is dit noodsaaklik dat ons in hierdie verband dieselfde grondbeginsels moet aanvaar as wat reeds aanvaar is in verband met die bevordering van liggaamlike gesondheid, dit wil sê, die aandag moet, enersyds, toegespits word op die opbouing van weerstand teen geestesiektes en, andersyds, op die verwydering van ongesonde toestande wat die ontstaan van geestesiektes in die hand werk.

Ek wil nie uitwei oor al die aspekte van die maatreëls wat daar in hierdie verband nodig is nie, en wil slegs kortliks aanstip wat die rol is wat die sielkunde in hierdie verband behoort te vervul.

DIE OPBOU VAN WEERSTAND TEEN GEESTESSIEKTES

Maatreëls in hierdie rigting vereis, in eerste instansie gesonde opvoeding in die sin van karakter en persoonlikheidsvorming. Hier is dit klaarblyklik die skole en die onderwysers in ons land wat naas die ouers die vernaamste bydrae moet lewer.

Daar is egter vrae soos die volgende wat in hierdie verband ontstaan:—

1. Is die onderwysers in ons land volgens die aard van hulle opleiding, behoorlik toegerus om te help met die opbou van weerstand teen geestes- en gedragsafwykings?

2. Indien 'n deeglike kennis van sielkunde as noodsaaklik beskou word vir die medikus, is dit nie hoog tyd dat ons behoort te beseef dat dit nog meer noodsaaklik vir die onderwyser is nie?

3. Is dit nie hoog tyd dat onderwysowerhede moet beseef dat die huidige fasiliteite, in verband met sielkundige dienste in ons skole, hopeloos ontoereikend is nie?

4. Het die tyd nie lankal aangebreek dat onderrigsmetodes in ons skole en die inhoud van skool-leerplanne op 'n beter wyse by die sielkundige aard en die geestesbehoefes van die groeiende kind moet aangepas word nie?

DIE VERWYDERING VAN ONGESONDE TOESTANDE WAT DIE ONTSTAAN VAN GEESTESAFWYKINGS IN DIE HAND WERK

Stappe in hierdie verband vereis kennis van die nadelige sielkundige uitwerking, wat sekere uiterlike wantoestande op die gesonde geestesontwikkeling van die kind en op die handhawing van 'n gesonde geestestoestand by die volwassene kan hê.

Die vernaamste bronne is:

1. *Wantoestande in die huwelikslewe en in die huisgesin.* Buro's vir sielkundige raadgewing, in verband met huwelike en kinderversorging, kan op hierdie gebied nuttige werk doen.

2. *Wantoestande in ons skole.* Dit is voorwaar treurig dat daar van wantoestande in ons skole melding gemaak moet word. Dit is egter toestande wat met die oog op die bevordering van geestesgesondheid ernstige aandag verdien.

Een besondere wantoestand wat ek veral in die oog het, is die buitensporige groot klasse waarmee die onderwyser belas word. Die klasse is deurgaans so groot dat die onderwyser, met die beste wil van die wêreld, nie daarin kan slaag om individuele aandag aan die persoonlike en sielkundige behoeftes van sy leerlinge te skenk nie, of om 'n gesonde atmosfeer in sy klaskamer te skep nie.

Hierdie toestand is veral noodlottig vir die jong kinders

wat vir die eerste keer skooltoe gaan. Die sielkundige krisis wat 'n jong kind gedurende sy eerste skooldae deurmaak word helaas glad nie begryp nie. Watter mate van individuele aandag kan die kind in hierdie groot oorgangstydperk van sy jong lewe van 'n onderwyseres verwag wat oorlaai word met 'n klas wat soms tot oor die 40 of selfs 50 tel? Dan word daar allerweë gekla oor 'n tekort aan onderwysers! Watter aanmoediging is daar om die onderwys as beroep te kies onder sulke opvoedkundige wantoestande?

3. *Wantoestande in die Beroepslewe en in die Nywerheid.* Dit lei geen twyfel nie dat talryke geestesafwykings toegeskryf kan word aan verkeerde beroepskeuses, aan die plasing van werknemers in werksoorte waarvoor hulle nie die nodige aanleg besit nie, of aan werkstoestande wat nie met die sielkundige behoeftes van die mens rekening hou nie. Gelukkig is daar op hierdie gebied oral reeds bemoeidigende ondernemings aan die gang in verband met die instelling van personeel-sielkundigedienste en dienste in verband met beroepsleiding.

SLOT

In die eerste radiopraatjie oor geestesgesondheid (en met hierdie onderneming wil ek die Nasionale Raad vir Geestesgesondheid en die Suid-Afrikaanse Uitsaaikorporasie graag van harte gelukwens) wat Sondagaand (2 September 1951) uitgesaai is, het die spreker, onder andere gesê dat die 18e eeu as die eeu van die rede gekenmerk was; die 19e eeu as die eeu van die wetenskap, en dat die 20e eeu die beste beskryf kan word as die eeu van angs ('the century of anxiety').

Ek glo dat die spreker die spyker hier op die kop geslaan het. In die erg verstoorde wêreld wat deur die laaste groot oorlog nagelaat is, is angs vir die toekoms en onsekerheid in alle fases van die lewe een van die mees opvallende verskynsels.

Dit skyn asof die mensdom, op 'n wêreldwye skaal, die ewewig kwyt geraak het en besig is om, in koersagtige gejaagdheid na middels te soek om die ewewig te herstel. Die ontsettende emosionele spanning wat deur hierdie reuse geesteskonflik veroorsaak word, kom tot uiting in patologiese sosiale simptome soos toenemende sedeloosheid, egskedings, misdadigheid en drankmisbruik en in baie gevalle lei dit tot geestesiektes.

Redding uit 'n dreigende geestes-ineenstorting op groot skaal kan moontlik gemaak word indien:—

1. Doeltreffende maatreëls vir die opbou en versterking van weerstand teen geestes-ontwrigting in die werk gestel word;

2. Wantoestande verwyder word wat die geestesgesondheid van sowel die kind op skool, as van die volwassene in sy beroep, bedreig.

SUMMARY

PSYCHOLOGY AND MENTAL HEALTH

The share of psychology in the task of promoting mental health is closely connected with the development of new concepts and new insight into the problem of health in general.

Modern concepts have given rise to two movements:

(a) Improvement and expansion of medical training.

(b) Co-ordination of all auxiliary medical services including clinical psychology.

Fundamental Facts. (a) Mental health is not an independent branch but an aspect of general health.

(b) No medical doctor, however well qualified, is able to shoulder single-handed the responsibility of health in all its aspects.

Efficient handling of the problem of mental health requires teamwork in which at least the following five professions should be combined: Medicine, psychiatry, clinical psychology, sociology and education.

Practical Difficulties in Teamwork. (a) Responsibility for the team: as the medical doctor is the best equipped to assume the legal and moral responsibility for the welfare of the patient, he should also assume responsibility for the team as a whole.

(b) Overlapping of psychiatrist and psychologist: In spite of a certain amount of overlap, there is one field in which only the psychiatrist is qualified to render the best service, viz. serious cases requiring medical and physical methods of treatment; and another field in which only the clinical psychologist is qualified to render the best service, viz. cases of minor maladjustment and psycho-diagnostic testing.

Fundamental Principles of Promoting Mental Health in the Community. (a) Concentration on methods of building up resistance to mental ill-health especially through character and personality education at home and in school.

(b) Removal of unhealthy environmental conditions which tend to enhance the incidence of mental ill-health.

ABSTRACTS

R. W. Kalmansohn and J. J. Sampson, *Studies of Plasma Quinidine Content: Relation to Single Dose Administration by Three Routes*.—(Circulation, New York (1950): 1, 564-568.)

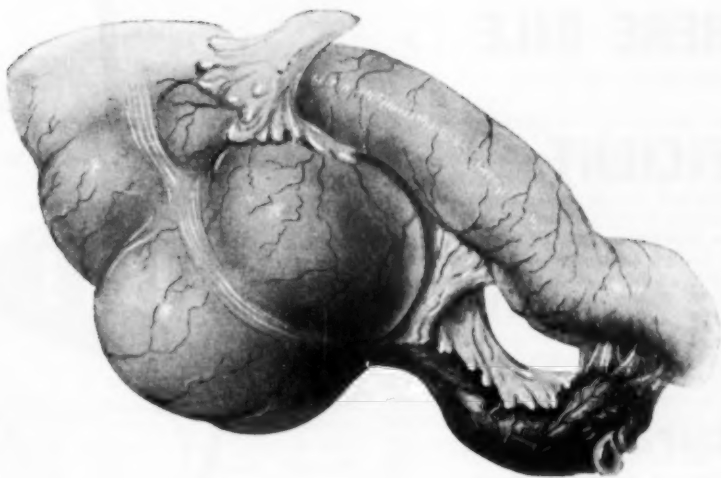
The plasma quinidine concentrations observed when the drug was given by three routes, orally, intramuscularly, and rectally, were compared. The maximum concentrations following the administration by the three routes of approximately 0.60 gm. of quinidine averaged, respectively, 3.2, 2.68, 0.89 mg. per litre in an average time of two and one-quarter, two and one-third, and three and one-quarter hours.

The intramuscular route, resulting in approximately the same plasma concentration curves as when the drug is given by the oral route, would seem to be valuable chiefly when

quinidine cannot be given orally because of certain patients' intolerance to the oral administration as evidenced by nausea or diarrhoea and when nausea and vomiting preclude any oral medication, quinidine can be administered rectally, but dosages probably two to three times those used orally may be necessary to produce equivalent plasma concentrations.

Vitamin B₁₂ and Subacute Combined Degeneration of the Spinal Cord. R. E. Stone and T. D. Spies (1948): Int. Z. Vitaminforsch. 20, 228.

Parenteral administration of Vitamin B₁₂ to three carefully selected patients resulted in improvement of symptoms in each case and in significant reversal of some of the abnormal physical findings in two cases.



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Schaeffer, J. R., and Pulaski, E. J.:
U. S. Armed Forces M. J. 1:1447 (Dec.) 1950.

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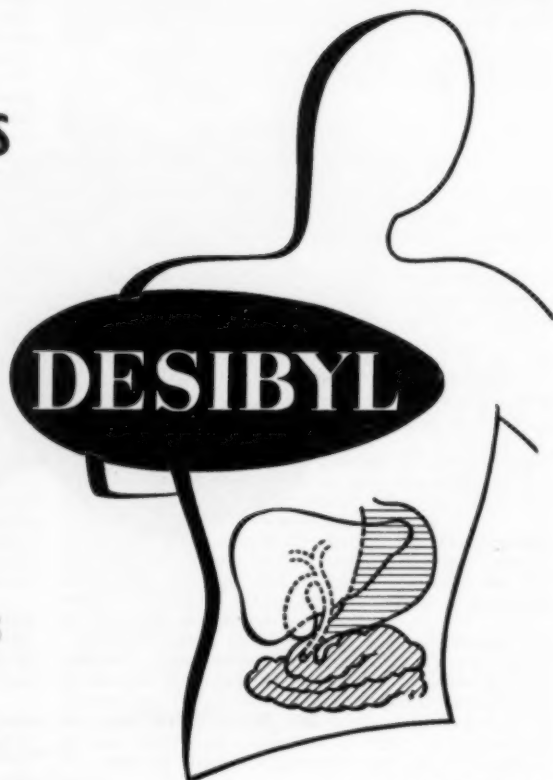
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South African Medical Journal

Suid-Afrikaanse Tydskrif vir Geneeskunde

EDITORIAL

CAUSES OF DEATH AFTER OPERATION

An interesting and important report has recently been published¹ comparing the causes of death after operation in two different decades some 20 years apart. The original communication was published in March 1930² and reported that suppuration connected with the operative procedure was the most prominent primary cause of death after operation. Post-operative pneumonia accounted for only 8% of the post-mortem material, and deaths from embolism and thrombosis, grouped together, totalled only 3% in the series of 800 autopsies performed.

The investigation is, of course, in no way related to operative mortality, being concerned solely with the reason why patients die after an operation. In both the analyses, patients dying within 48 hours after operation were excluded; moreover, the analysis of the decade 1938-1947 has been classified so as to be entirely comparable with the earlier one.

The first interesting conclusion has been the gradual decrease in the number of autopsies available for inclusion in the second series. This was undoubtedly due to a decrease in operative mortality, because the percentage of autopsies has remained constant, viz. some 44%. This decrease in operative mortality is the more striking because the number of operations performed has increased in the period under review.

A very great difference in the two periods is, of course, the availability of the sulphonamide drugs (beginning in 1938) and the antibiotics (the Penicillin period starting in 1945). In addition there have also been remarkable improvements in the techniques of surgery as well as supportive therapy. Nevertheless, the surprising result emerges that the causes of death which existed 20 years ago still exist to-day. Aufses and Neuhof suggest that they have been lost sight of because of the marked decrease in the actual number of post-operative deaths.

Suppuration is not much altered as a cause of death despite the remarkable efficacy of present-day chemotherapeutic agents. Twenty years ago it accounted for 56% of the deaths compared with 44% in the current series. The decrease in the deaths from suppuration cannot be stated to be due to modern antibacterial agents as the decrease also occurred in an untreated group.

1. Aufses, A. H. and Neuhof, H. (1951): J. Mt. Sinai Hosp., 18, 166.
2. Neuhof, H. and Aufses, A. H. (1930): Ann. Surg., 91, 321.

VAN DIE REDAKSIE

OORSAKE VAN DOOD NA OPERASIE

'n Interessante en belangrike rapport is onlangs gepubliseer¹ wat die oorsake van dood na operasie, gedurende twee dekades, ongeveer 20 jaar uitmekaar, vergelyk. Die oorspronklike mededeling was in Maart 1930² gepubliseer en het berig dat verswering verbonde aan die operatiewe prosedure die mees prominente primêre oorsaak van dood na operasie was. Longontsteking wat na die operasie ingetree het, was verantwoordelik vir slegs 8% van die lykskouing materiaal, en sterfgevallen van embolie en trombose, saamgevat, het slegs op 3%, in die reeks van 800 lykskouings wat uitgevoer is, te staan gekom.

Die ondersoek het, natuurlik, geen betrekking op die operatiewe sterftesyfer nie, maar gaan slegs oor die oorsaak waarom pasiënte na 'n operasie sterf. In beide analises was pasiënte wat binne 48 uur na die operasie sterf uitgesluit; bowendien was die analise van die dekade 1938-1947 so geklassifiseer dat dit in geheel met die vroeëre analise vergelyk kon word.

Die eerste interessante bevinding was die geleidelike afname van die getal lykskouings beskikbaar vir insluiting in die tweede reeks. Dit was ongetwyfeld te wyte aan die afname in die operatiewe sterftesyfer, want die persentasie lykskouings het konstant gebly, naamlik ongeveer 44%. Hierdie afname in die operatiewe sterftesyfer is soveel meer opvallend, want gedurende die tydperk waarvoor die verslag gaan, het die getal operasies wat uitgevoer is, vermeerder. 'n Baie groot verskil tussen die twee tydperke is, natuurlik, die beskikbaarheid van die sulfonamide geneesmiddels (wat in 1938 begin het) en die antibiotiese middels (die Penisillin-tydperk wat in 1945 begin het). Boonop was daar, natuurlik, merkwaardige vordering in die tegniek van snykunde sowel as ondersteunende terapie. Nogtans tree die verbasende resultaat dat die oorsake van dood wat 20 jaar gelede bestaan het, vandag nog bestaan, te voorskyn. Aufses en Neuhof beweer dat die oorsake, as gevolg van die merkbare afname van die werklike getal sterfgevallen van operasie, uit die oog verloor is.

Verswerings het, ten spyte van die merkwaardige doeltreffendheid van hedendaagse chemie-terapeutiese middels, nie baie verander as 'n oorsaak van dood nie. Twintig jaar gelede was dit verantwoordelik vir 56% van die sterfgevallen in vergelyking met 44% in die huidige reeks. Dit kan nie gesê word dat die afname van sterfgevallen weens verswering toegeskrywe kan word aan die moderne antibakteriese middels nie, want die afname het ook by 'n onbehandelde groep voorgekom.

1. Aufses, A. H. en Neuhof, H. (1951): J. Mt. Sinai Hosp., 18, 166.
2. Neuhof, H. en Aufses, A. H. (1930): Ann. Surg., 91, 321.

More alarming is the conclusion that although anti-bacterial treatment may have prevented or cured many lung infections occurring post-operatively, post-operative pulmonary infection has become a more common cause of death in the later series. There has been a surprising increase in deaths due to pulmonary embolism which now averages some 8% as compared with 3% in the first series, when deaths from embolism and thrombosis were grouped together.

This is a matter which most certainly deserves further investigation, emphasizes the need to consider carefully in what ways this most serious complication may be avoided, and constitutes a challenge to research and resourcefulness in this field. Parallel South African analyses, especially because of our racially complex society, might prove very instructive.

LABORATORY AIDS IN DIAGNOSIS

We would like to draw the attention of our readers to the instructive communication (published elsewhere in this issue) by Dr. H. J. Heinz of the South African Institute for Medical Research, Johannesburg.

Although Dr. Heinz has confined himself to the need to provide fuller particulars about the patient when parasitological specimens are sent to the laboratory for investigation, the principles implicit in his statement have, very obviously, a wide application to the submission of every kind of laboratory specimen.

When insufficient information is sent to the laboratory, it becomes impossible to establish that close liaison between the clinician and the technician which is so essential if the full value of a laboratory service is to be achieved.

Dr. Heinz' paper draws timely attention to the way in which our colleagues can help the laboratory to provide fuller and more helpful information which will be of material assistance in establishing the diagnosis, by permitting the laboratory to employ the methods best suited to the particular examination.

Wat nog meer sorgbarend is, is die bevinding dat hoewel anti-bakteriese behandeling baie longinfeksies wat na operasie voorkom mag verhoed of genees het, het long-aandoening na operasie in die latere reeks 'n meer algemene oorsaak van dood geword. Daar was 'n verbasende toename in sterfgevälle as gevolg van longembolie wat nou op ongeveer 8% te staan kom in vergelyking met 3% in die eerste reeks, toe sterfgevälle van embolie en trombose saamgevat is.

Dit is seer sekerlik 'n saak wat verdere ondersoek vereis, die noodsaaklikheid om sorgvuldig te oorweeg op watter maniere hierdie baie ernstige komplikasie voorkom kan word, benadruk, en vorm 'n uitdaging aan navorsing en vindingrykheid op hierdie gebied. Parallele Suid-Afrikaanse ondersoeke mag veral weens die komplekse rasse-samestelling van die gemeenskap, baie leersaam wees.

LABORATORIUMHULP MET DIAGNOSE

Ons wil graag ons lesers se aandag vestig op die leersame mededeling deur dr. H. J. Heinz van die Suid-Afrikaanse Instituut vir Mediese Navorsing, Johannesburg, wat elders in hierdie uitgawe verskyn.

Hoewel dr. Heinz homself beperk het tot die noodsaaklikheid om vollediger besonderhede omtrent die pasiënt te verstrek wanneer parasitologiese monsters na die laboratorium gestuur word vir ondersoek, is die beginsels wat in sy verklaring opgeslote is, baie duidelik van wye toepassing op die voorlegging van enige soort laboratorium-monster.

Wanneer onvoldoende inligting aan die laboratorium gestuur word, word dit onmoontlik om daardie noue skakel tussen die klinikus en die tegnikus, wat so noodsaaklik is as die volle waarde van 'n laboratorium-diens verkry moet word, te bewerkstellig.

Dr. Heinz se verhandeling vestig tydlig die aandag op die wyse waarop ons kollegas die laboratorium kan help om vollediger en meer behulpame inligting te verskaf, wat van groot hulp sal wees om die diagnose te bepaal, deur dit vir die laboratorium moontlik te maak om die mees geskikte metodes vir die besondere ondersoek te gebruik.

OBJECTIVES AND LIMITATIONS OF A PARASITOLOGICAL LABORATORY

H. J. HEINZ, PH.D.

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In most countries private, semi-private or government medical laboratories are stable and recognized institutions serving the general public and the medical profession. Unfortunately, however, a few doctors, and especially those who have had no opportunity of acquainting themselves with technical methods used in the laboratories, are apt to over-estimate their potentialities. For this reason the writer believes it worth while to discuss the limitations as well as the possibilities of a parasitological laboratory.

One of the basic drawbacks confronting laboratory personnel is the lack of information concerning a given patient and the specimen of stool, urine or blood which is being

examined. In most cases the information does not exceed a knowledge of the name of the patient and, in hospitalized cases, the Ward number. Of course, this is relative and varies from those cases in which the patient is sent to submit a stool specimen in the laboratory to cases so far distant that it is difficult to reach the doctor, even by telephone. The particulars accompanying the specimen could do much to overcome this difficulty by giving detailed information concerning the patient. In numerous cases there is little information given which is of any use to the laboratory technician handling the specimen. Occasionally one gains the impression that the submitting doctor has given the matter of exact diagnosis

little thought, preferring to leave it entirely to the laboratory. Nothing could be more wrong than such an approach to any parasitological disease. No laboratory can or should be regarded as a complete diagnostic unit. Its purpose is to determine certain quantitative values or to make factual observations on a given specimen. With the aid of these data the practitioner is enabled more easily to come to his own conclusion concerning a case. Even a positive malaria report should merely substantiate conclusions which have already been drawn. Close personal contact between the clinician and the laboratory will, of course, facilitate the interpretation of the laboratory findings. It is necessary to treat this point in a little more detail, and to deal with some of the larger groups of parasitological diseases separately.

A. THE DETECTION AND IDENTIFICATION OF WORM OVA

In looking for worm ova, the usual procedure is to examine either stool or urine specimens. In numerous cases it is possible to find worm ova in a normal saline stool preparation. Without a concentration method, however, at least 14% of the positive cases will not be detected. Laboratories stationed in an endemic worm area will know which worm ova to look for and will be able to utilize one standard concentration method adapted to those ova with success. Few positive cases will be overlooked by the examiners under such favourable conditions. Laboratories which receive a large variety of material are at a much greater disadvantage. To understand this it is necessary to consider concentration methods briefly.

Numerous concentration methods have been developed in laboratories all over the world. All have their advantages and their disadvantages. The available methods may for convenience sake be placed into 3 main groups:—

1. The first of these, the sedimentation technique, requires much time and can, therefore, only be used effectively in laboratories handling only a few stools a day.

2. The second group, the flotation techniques, are useful in their various modifications, but the best flotation method is of little value if the particular ova contained in the stool belong to a group of eggs (*Taenia*, *Bilharzia*) which do not float. Even a flotation method can become uncertain in its efficiency if the stool specimen contains oil which crowds away the ova on the meniscus of a flotation set up. The writer is sure that some of the doctors would refrain from giving their patients oil as a purgative if they realized the difficulties they thereby cause in the laboratory.

3. Finally, there is the third group of methods which fix the eggs with HCl, Na₂SO₄ or some other chemical and separate them from the mass of the faeces by utilizing wetting agents and ether. In these methods the eggs are spun to the bottom. Whereas theoretically these latter methods are credited with being effective against all worm ova, often practice contradicts the theory. Not all stools are suited for this group of methods. The consistency of some is such that they adapt themselves very badly to the method. The amount of detritus spun down with the eggs may be so great that one can hardly speak of a concentration. Numerous eggs are apparently occasionally trapped in the upper portions of the faeces, i.e. the portion discarded. Thus it is not surprising that alterations are constantly being suggested for this group of methods, even though they have great promise of becoming the best all-round methods.

What do these difficulties mean? They mean that a laboratory technician without some hint about what the doctor is looking for, or what is suspected to be the cause of the patient's symptoms, has difficulty in deciding what concentration method to use. In the majority of cases a

flotation method will be used with positive results. But there are cases where an acid-ether method would have been the method of choice. Here it is the doctor's job to say (and many do say), e.g. 'Look for *Bilharzia*'.

But even though the laboratory worker knows what to look for, he may still obtain a negative result in definitely positive cases. It is known (Gerritsen *et al.*¹) that not all stools, nor urines for that matter, of *bilharzia* cases need contain ova. The number of eggs discharged by *bilharzia* patients varies greatly from day to day, and on many days no ova will be detected at all. A further difficulty which must be contended with is the different consistency of various stool-ports. We have examined stools which contained *Strongyloides* larvae, *Ascaris* and *Taenia* ova distributed over various parts of the stool. Had such a stool been examined superficially the results would have been positive for only one of the above-mentioned parasites.

Finally a word must be said about pin-worm infections. Frequently stools are sent in with a provisional diagnosis of pin-worms. As has been pointed out by the writer² the chances of detecting *Enterobius vermicularis* ova in a stool are usually not very good. The method of choice in sending in a specimen is to submit a Scotch tape swab of the peri-anal and perineal skin on a glass slide.

B. THE DETECTION AND IDENTIFICATION OF AMOEBAE

Great difficulties exist for a laboratory worker examining old stools for amoebae. The ideal is to have a patient who is definitely under suspicion of being amoebic, or who has had treatment and may still be positive, come to the laboratory to pass a fresh stool. Experience has shown that often many stools are negative before a positive one is found. This fact, we believe, is not sufficiently appreciated by the submitting practitioner who, upon receiving a negative result from one stool examination, does not feel satisfied with the result in view of his own diagnosis. In such cases arrangements must be made for the examination of numerous stools, if necessary up to 20.

A laboratory worker has several methods at his disposal in examining for amoebae. A normal saline preparation of the stool may be stained with iodine or some other vital stain, or a permanent preparation stained with iron-haematoxylin may be prepared in order to clinch a difficult identification. If the stool has cysts, they may be concentrated with one of the above-mentioned worm ova methods or, if the laboratory is equipped to do so, a suspicious but negative stool may be cultured in the appropriate medium. To use all or several of these methods takes time and is expensive, but neither of these factors matters where it is necessary to get a reliable result. Oftentimes, however, a stool is submitted without any provisional diagnosis, and all that is asked for is 'parasites'. It is no wonder that a specimen so marked will not receive the amount of specialized attention that it deserves, merely because the laboratory worker is not aware of the probability of this or that particular infestation.

Many stools are sent by post from a distance. In these circumstances the laboratory worker must do his best with stools which have been submitted in iodine preservative. He will examine such specimens to the best of his ability, but he will not (and this must be stressed) feel very happy

about his results. A reliable diagnosis of amoebiasis should be made by the observation of fresh living amoebae so that their movement, form and other characteristics may be studied. They should then be stained with an iron-haematoxylin stain. Amoebae in iodine preservative cannot be stained with other stains, nor is it possible to culture them. For these reasons, whenever possible, the patient should be sent to the laboratory to pass a stool. The examining technician should, if possible, see the entire stool. There are numerous features which characterize an amoebic stool, and there are certain portions of the stool which are more likely to be positive than others if there is any possibility of amoebic dysentery at all. The examiner should be placed in a position to choose the likely portions of stool for himself. Stool that has been chosen and submitted in small quantities by someone else puts the laboratory technician at a definite disadvantage before he even starts his examination. Consistently reliable positive and negative findings can only be achieved by any laboratory through a close co-operation between the submitting practitioner and the laboratory. Merely submitting a stool and grumbling about unexpected negative results is of no help to the patient, the laboratory or the practitioner.

C. DETECTION AND IDENTIFICATION OF BLOOD PARASITES

A final word about the common parasitic blood diseases. Their examination will cause no great difficulties, provided that the blood smears are well made. Whereas in some cases of malaria a thick smear must be relied on, we

definitely dislike thick smears and we resort to them only when compelled to do so. The poor stains which we receive at the present time make it only too easy to misdiagnose an artefact for a parasite in a thick smear. For that reason we believe that a thin smear should never be neglected. Nevertheless, a thin and a thick smear should always be available for examination. It is often useful to make a concentration for malaria parasites if citrated blood is available. Frequently, however, there is only the thick and a badly prepared thin film to examine. If, in such a case, the parasites happen to be very scanty, the laboratory is hard pressed to produce a positive result. Concentration methods, similar to the malaria concentration methods, can also be utilized in filaria cases and relapsing fever if citrated blood is available.

A laboratory may be able to detect sleeping sickness in the blood, lymph or cerebrospinal fluid. Frequently, however, the parasites are extremely scanty, so that an animal experiment is necessary. In such cases it is best to summon a technician from the laboratory and to infect the animals at the bedside.

This short paper will, we believe, impress upon the reader the necessity of close co-operation between practitioner and parasitological laboratory, if reliable results are to be expected.

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RITTER'S DISEASE AND SCLEREMA

REPORT ON TWO RARE CASES IN INFANTS

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CASE 1: RITTER'S DISEASE

A Bantu male aged 9 days, was admitted at 7.10 a.m. on 18 August 1951.

Complaint. 'The skin of the body was coming off' for 3 days.

History. This was obtained by an interpreter from the mother who was very primitive and appeared to know very little about the baby. The baby was born at home with no nurse in attendance. The mother said the baby appeared normal at birth. The infant was vigorous and the skin was of normal colour. It was not breast fed. It took cow's milk and water, but the mother was very vague about how she made the feed or whether there was vomiting or not and she could give no information about stools. Four days before admission it was noticed that the skin around the mouth, on the chin and on various other parts of the body was being shed in large sheets. The mother thought that the condition began as a blister and extended in size and then broke down leaving large bare areas. She had not applied anything to the skin apart

from soap and warm water. The baby had never been placed in very hot water.

Examination showed a male infant, 9 days old; temperature 98°F, pulse 124 per min.; respirations, 20 per min. It appeared quite vigorous and cried lustily. It had no jaundice or cyanosis.

The skin over the back, buttocks, abdomen, elbows and the lower part of the face had exfoliated (Fig. 1) leaving bright salmon-coloured underlying areas.

The respiratory system revealed no abnormality apart from rhonchi throughout both lungs.

The cardiovascular system: Nothing abnormal detected.

The central nervous system: Nothing abnormal detected.

The alimentary system: Mouth and tongue were normal.

The abdomen: The skin was denuded. No splenomegaly and no hepatomegaly were found.

The stool: Soon after admission this was yellow and watery and contained no blood or mucus.

The ears: The skin of the external ear was denuded.

The ear drums: Nothing abnormal detected.

The nose: Nothing abnormal detected.

The throat: Nothing abnormal detected.

The blood Wassermann reaction of the mother was negative.

The condition was diagnosed as Ritter's disease (dermatitis exfoliativa neonatorum).

The infant was put on Penicillin and Sulphadiazine. The body was sponged with weak potassium permanganate and the child was placed in a basinette, lightly covered and disturbed and handled as little as possible. It was given Hartman's solution (half strength) and glucose (half strength) by mouth.



The baby passed another green, watery stool 5 hours after admission.

By the following morning the infant had developed a bronchopneumonia. As it had received a large dose of Penicillin (200,000 units initially followed by 100,000 units 6-hourly and 0.25 gm. Sulphadiazine 4-hourly) since admission, it was decided to try Aureomycin. It was placed in an oxygen tent, but died at 4.35 p.m., just over 33 hours after admission.

A few hours before death both hands became dead white but did not feel cold. A post-mortem examination was refused.

The etiology of Ritter's disease is not definitely known. The condition is found in newborn babies, mostly breast-fed infants, and generally appears in the second week of life.

Symptoms. Reddened areas are found on the cheeks, near the mouth and spread all over the body. Desquamation takes place leaving large raw surfaces and the skin may come off like a glove from the hands or like a sock from the feet. The mortality is usually very high, varying from 50%-80%. The differential diagnosis must take into consideration:—

1. *Leiner's Disease.* Here there is an exudative phase and a seborrhoea of the scalp. The condition usually commences on the buttocks and extends to the rest of the body.

2. *Congenital Syphilis.* Lesions in syphilis are found on the palms of the hands and soles of the feet. X-rays of the bones and a blood Wassermann test, though the latter may be unreliable at this age, assist in the diagnosis. Treatment consists of careful handling. The condition is an infectious one and the infant should consequently be isolated.

CASE 2: SCLEREMA

A Bantu male aged 4 days, was admitted on 1 October 1951. (His twin sister died in the maternity wards.)

No history was available about the mother's pregnancy. She was delivered of twins, the first a female, the second a male. This infant had to be nursed in a general ward.

On admission the weight was 3 lb. 11 oz. Temperature 97°F, pulse 136 per minute; it cried feebly. Apart from a few small red papules on the front of the neck there was no evidence of infection or of skin sepsis. The umbilicus was normal.

The Cardiovascular system: Nothing abnormal detected.

The Respiratory system: Nothing abnormal detected.

The Central Nervous System: Nothing abnormal detected.

The Alimentary System: The mouth and tongue were normal.

The abdomen: Nothing abnormal detected. A stool was not seen on admission.

No breast milk was available from the mother, so pooled breast milk was obtained from other patients. The infant was fed 4-hourly on 1:4 dilution which was gradually increased in strength and quantity until it was taking 1½ oz. pure breast milk 8 days after admission (12 days old).

The infant was handled as little as possible and nursed in a warm basket crib. One stool a day was passed from the second day after admission. This was green and slightly loose but the stools improved till a normal yellow one was passed 2 days before death. On the day after admission thyroid was administered, gr. 1/10, 3 times a day.



The infant appeared to be doing quite well until 11 days after admission, when it developed sclerema which started on the feet and rapidly spread during the next few days to involve the whole of both limbs, vulva, buttocks and lower abdomen up to the level of the umbilicus (Fig. 2). The feet were bright pink in colour while the rest of the

skin of the body showed marked pallor. The temperature remained in the region of 97.4°F, only once rising to 98.6°F, 4 days after admission.

On 15 October 1951, i.e. 2 weeks after admission, the respiration became rapid, cyanosis developed and fine crepitations were heard throughout both lungs. The infant failed to respond to treatment and died on 16 October 1951, aged 20 days.

Sclerema. This condition, found in the newborn premature infant, is associated with a disturbance of the consistency of the subcutaneous tissue. There is a marked reduction of the body temperature and the infant is

generally debilitated. The skin becomes hard and does not pit on pressure. This hardness extends over the lower limbs, and the vulva. In the male the scrotum, the penis, the palms of the hands and the soles of the feet escape. It can be found in the face, the thorax and almost any other part of the body. This swelling may become very diffuse and if it is situated near the mouth, it may interfere with suckling. In some instances an icteric appearance of the skin is visible. The prognosis is very unfavourable indeed and is accompanied by a high mortality.

Treatment consists of keeping the infant warm (to raise the subnormal temperature) and tubal feeding.

JAW TUMOURS*

II: BENIGN TUMOURS AND CYSTS

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Adamantinoma will be excluded from this section of the paper. The classification has already been mentioned (this *Journal*, p. 148).

- I. *Arising from Bone*
 - i. Fibro-osseous group:
 - Osteoma.
 - Osteofibroma.
 - Hyperostosis.
 - Osteoid osteoma.
 - Fibroma.
 - ii. Osteoclastoma (giant cell tumour).¹⁵
 - iii. Haemangioma.
 - iv. Rarities:
 - (a) Myxoma.
 - (b) Chondroma, etc.
- II. *Arising from Soft Tissues:*
 - i. Mixed salivary tumour of the palate.
 - ii. Fibrous epulis.
 - iii. Haemangioma.

III. *Arising from Dental Tissues.*

This includes all the non-malignant odontogenic tumours as indicated by Thoma. From the practical point of view the following classification is suggested:—

- i. *Dental cysts:*¹⁶
 - (a) Dental root cyst (radicular cyst).
 - (b) Dentigenous cyst (follicular cyst).
 - (c) Incisive canal cyst
 - nasopalatine.
 - traumatic.
 - cysts of eruption.
- ii. *Odontomes:* With masses of calcified tissue or conglomerate teeth, dental enamel, etc.
- iii. *Adamantinoma:* ameloblastoma, adamantino-epithelioma, multilocular cysts etc. (These are not considered in this section of the paper).

THE FIBRO-OSSEOUS GROUP OF TUMOURS

There is a wide range of fibro-osseous tumours,¹⁷ from the compact osteomas to pure fibromas and fibro-chondromas.⁸

The upper jaw type of diffuse tumour, the osteofibroma, is a tumour about which very little is generally known. The tumour grows slowly, distorting the face. The composition is that of a mixture of fibrous and bony tissue

and under the microscope this may be indistinguishable from the fibrous osteitis of parathyroid tumour, fibrous dysplasia of bone (Albright), Paget's disease or osteoclastoma.

Osteofibroma of the maxilla should not be subjected to radical resection. The patients are young children or young adults. These growths do not become malignant. The deformity and disability following excision of the maxilla is so serious from the point of view of facial deformity and speech, and in operative risk, that it is a fool-hardy surgeon who advises his patient to undergo this unsightly procedure when, by shaving down the excessive prominences on occasions, the general features can be preserved without any of the afore-mentioned defects.

After attaining adult life, at about 21, these growths stop progressing and a final trimming to the natural state is all that is required.

Case History. Miss A. E. D., a European female aged 16 years, presented with a history of a swelling in the right cheek for 3 years. She stated that at the age of about 12–13 years she experienced recurrent nose bleeds. Since then she had noticed a swelling in the region of the right cheek bone. The swelling had not increased in size for the last year or so. It was associated with intermittent pain, like a toothache of the right upper cheek. She has noticed that her right eye has been pushed out of place.

Examination. An adolescent female in apparently good health, had a swelling of the right maxillary region. It was bony hard. The right eye was at a higher level than the left. There was exophthalmos of the right eye and the right nares was pushed forwards, while inferiorly there was a bulging of the hard palate. The nasal mucosa was reddened, the right inferior turbinate was enlarged and in contact with the septum. There was also some swelling on the buccal aspect of the maxilla, with no tenderness on pressure over the mass. Sensation of the cheek was normal. The Wassermann test on 4 March 1946 was negative.

X-ray (Fig. 1) showed a homogeneous well-demarcated mass in the right maxilla. The upper extent of the tumour projected into the orbit and had elevated the floor of the orbit right back to its posterior limit. The swelling extended to the right posteriorly to the region of the lateral pterygoid plate and anteriorly it projected anterior to the normal line of the maxilla. Medially the tumour encroached upon the medial wall of the antrum and the lateral wall of the nasal

* The References will be published at the end of the concluding part of this series.

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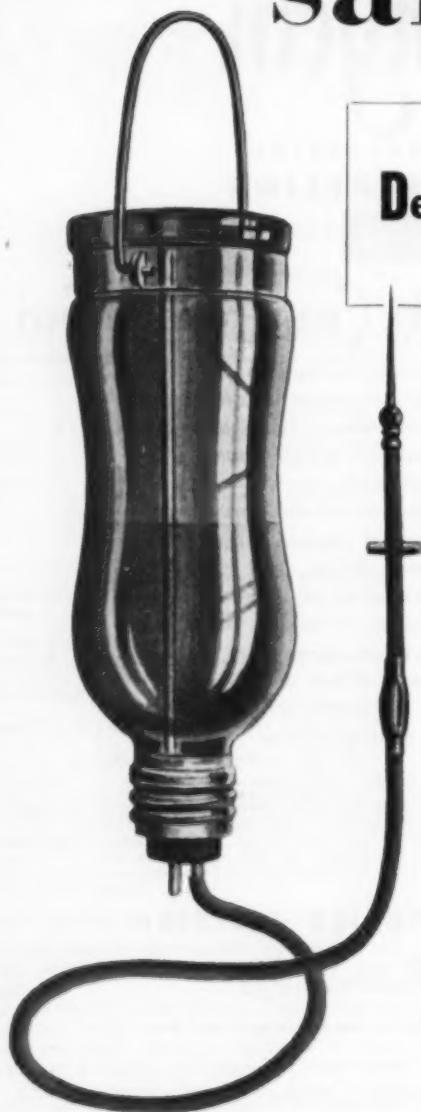
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cavity, but was homogeneous and compatible with the appearance of an osteofibroma of the maxilla.

25 February 1946. The antrum was opened in the sub-labial space. A white rubbery solid tissue suggestive of fibroma was seen. There was no bleeding on incising the mass. Shaving of the tumour and a biopsy were done.

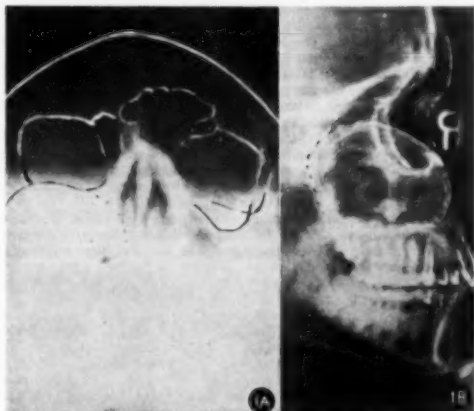


Fig. 1a. Osteofibroma (right maxilla). Well-defined bulge of the orbital edge of the homogeneous tumour.

Fig. 1b. Osteofibroma of the right maxilla. Definition of the edge of the tumour.

4 March 1946. A section of this specimen showed fibrous connective tissue with spicules of osteoid tissue and evidence of calcification. The histological features were those of an osteofibroma.

Discussion. This type of tumour can safely be classified among the osteofibromas. Its growth is slow and tends to stop after adolescence. It is justifiable to recommend conservative shaving of the growth so that general configuration can be maintained. In this case the elevation of the eye must be considered. There is no diplopia and if the tumour is not progressing, it is justifiable to maintain a conservative attitude. Operative plastic measures to reconstitute normal height will, in all probability, cause serious disturbance of eye movements. I do not consider that excision of this growth is indicated. It is meddlesome and dangerous surgery to remove a massive tumour of the maxilla when that tumour is benign and not increasing in size.

Small osteomata sometimes fill the frontal sinuses. Phemister and Grimson¹⁷ point out:

'The general manner in which these tumours have a relationship to membrane preformed bone, parallel to the relationship that benign cartilaginous tumours and exostoses have to cartilage preformed bone. This view is substantiated by their tendency to begin in childhood and to grow slowly or not at all in adult life as is the case with cartilaginous exostoses.'

Occasionally an osteoma of the ascending ramus of the mandible causes a gradual asymmetry of the face and the mandible is longer on the one side. The gradual growth may lead to adaption of the cusps or it may be necessary for repeated dental attention for occlusive defects.

In neurofibromatosis unilateral hypertrophy³ may affect one side of the mandible as part of a generalized unilateral affection.

Case History. S. F., a European aged 16 years, on 19 March 1946 complained of being unable to open his mouth (Fig 2a).

He stated that his mother told him that when she was giving him a bath at the age of 6 months she noticed suddenly that he could not open his mouth. Before this his mother said that he could do so normally.

He had never had, as far as he knew, any abscess or painful condition in the region of the right temporomandibular joint. He had never been ill otherwise and he had managed to suck his food and maintain nutrition and growth.

Physical Examination. There was marked trismus. The teeth overlapped and there was not the slightest indication of opening of the jaw on efforts to do so. The right side of the face was flat without any contraction of the masseter muscle, whereas on the left side there was some contraction to be felt. The temporal muscles on both sides could be felt to contract to some extent. On the right side there was no evidence of the presence of a parotid gland. The normal fullness of the parotid was absent and palpation only revealed the border of the mandible and no evidence of soft tissues, as on the opposite side. Tests for the facial nerve were otherwise normal. The forehead could be wrinkled and the mouth elevated equally on both sides and both the buccinators could be felt to contract powerfully.

Sensation on the face was normal. There was no difference in sensation over the mental, auriculo-temporal and the infra-orbital regions. On placing the index fingers in the external auditory meati, slight movements could be felt at the temporomandibular joints but mostly in a side-to-side manner. The



Fig. 2a. Inability to open mouth (since 6 months of age).

Fig. 2b. X-ray shows thickening of right ascending ramus. Evidence of healed previous osteotomy.

Fig. 2c. Opening of mouth after resection of half an inch of bone at the right temporomandibular joint.

right condyle and neck of the mandible could be felt to be enlarged to a much greater extent than on the left side; it also was felt to be more superficial than on the left side.

There was a scar over the right temporomandibular joint with slight tenderness over it. The patient stated that an operation (osteotomy) was performed upon the joint 2 years before at the Children's Hospital without, however, any improvement.

The patient's lips seemed somewhat hypertrophic and the submaxillary glands on both sides seemed to be enlarged; palpation confirmed enlargement of these glands but they were soft and freely movable. The neck muscles on both sides stood out prominently, especially the sternomastoid and the omohyoid. The neck veins were prominent even when he was standing. There was no breathlessness, oedema or other manifestation of cardiac failure and clinical examination otherwise revealed no abnormal finding in the other organs of the body.

On the right side, taste for a lemon was delayed as compared with the left. On the left side, taste was distinguished immediately whereas on the right, it took about 2 seconds. This delay was also present on testing for the taste of salt. The tongue could not be dried so that the moisture might have carried the lemon and salt over to the other side.

Discussion. The problem of trismus is a most interesting one. Firstly, trismus, apart from acute inflammatory conditions like quinsy, etc., is usually due to one of the following:—

1. Infected impacted third molar with alveolar abscess.
2. Fractured zygomatic arch with depression of the arch impinging upon the coronoid process.
3. Fracture-dislocation of the condyle of the mandible with displacement of the head and bony block.

These 3 conditions always must be considered, while excluding other possible causes, e.g., tetanus, hysteria, fibrosis in the masseter muscle, etc.

In this case the sudden onset of the condition, if one is to believe the story related by the mother, might possibly indicate trauma.

The X-ray of the mandible (Fig. 2a) showed a considerable thickening of the ascending ramus on the right side. The temporomandibular joint was reduced to an irregular line with sclerosis of the bone on either side, with widening of the neck region and below this a regular defect in the bone which must have been the area where an osteotomy was attempted 2 years ago. The X-ray report on 22 March 1946 stated: 'Tomographs of the temporomandibular region show the joint on the left side to be normally outlined. Cartilage is present in this articulation. With the mouth in the open and closed positions only a very small amount of movement is shown. On the right side a complete loss of joint space is present and an ankylosis in the temporomandibular joint is indicated.'

However, the radiologist on discussion agreed that the widening of the ascending ramus did not indicate osteoma; also that either an osteitis of the ascending ramus with acute suppurative arthritis of the joint might explain the radiological condition or that there might have been a fracture dislocation of the condyle in the past with altered formation of bone from the stripping up of the periosteum with haematoma formation. He observed, in fact, that a circular ring shadow was present which was indicative of the head of the mandible viewed end on.

How then was the atrophy of the masseter to be explained, whereas the other muscles supplied by the mandibular nerve were unaffected? It was not impossible, and quite likely, that this branch of the mandibular nerve had been damaged as it passed through the mandibular notch on its way to supply the masseter. It might be argued that atrophy of disuse might explain the condition, but it has been pointed out that the other masseter was quite well developed.

How were the alterations in taste to be explained? The chorda tympani nerve passes out of the middle ear at the anterior end of the squamotympanic fissure. This is in the mandibular fossa and very liable to be injured by a displaced condyle in acute trauma. If this is so, why were the 2 submaxillary glands both well developed? If the chorda tympani nerve had been paralyzed, the parasympathetic fibres to the right submaxillary gland were gone and the gland should not have developed. This was difficult to explain and it was suggested that a local reflex was still possible, somewhat like an axon reflex, in which the central fibres of the chorda

tympani were not damaged and therefore the gland was unaffected.

Finally, how could the atrophy of the parotid gland be explained? The parotid gland receives its secretory fibres from the auriculotemporal nerve. This was unaffected as was shown by normal sensation over the auriculotemporal skin distribution. Before the secretory fibres enter the auriculotemporal nerve they come from the otic ganglion which is deeply situated and out of danger from injury. However, the secretory fibres reach the otic ganglion from the lesser superficial petrosal nerve which leaves the skull near the foramen spinosum. It is quite conceivable that injury could have occurred to this nerve not far from the mandibular fossa. The secretory fibres having been paralyzed, this might account for the atrophy of the right parotid.

The hypertrophy of the muscles of deglutition might have been the factor in causing venous engorgement in the neck. The continued sucking and taste restriction and salivation in the anterior compartment of the mouth might explain the hypertrophy of the submaxillary glands.

Treatment. It was decided to expose the right temporomandibular region widely by means of an incision along the hair line above and extending down behind the antitragus. Removal of the bony mass leaving a false joint at the temporomandibular joint and removal of the bony block was the treatment planned.

This was done with difficulty. There was considerable bleeding at one stage of the osteotomy and it was probable that the middle meningeal artery was injured at the point about three-quarter way through the bony mass. However, this was controlled by packing. Eventually, a complete osteotomy was possible and the bone was nibbled away to form a space in the temporomandibular region about 4-inch wide. The tip of the index finger could then be introduced through this space into the infratemporal and pterygomandibular fossae. The tissues in that region felt soft and normal.

Attempts at opening the jaw were now rewarded by its opening to the amount of a large finger (Fig. 2c).

Subsequent progress was entirely satisfactory. The hollow in the masseter region filled out with operative haematoma and fibrosis so that the appearance was considerably improved.

The jaw movements delighted the patient who had never before, to his recollection, opened his mouth. The jaw was not forced, as it was considered that movements by the patient himself were much more valuable than attempts to stretch it. Application of cap splints had been contemplated and a turn buckle, but the conservative attitude was rewarded within 6 weeks by encouraging improvement, so that policy was continued.

It was not considered at any stage to attempt elongation of the temporal muscles on both sides, cutting the sphenomandibular ligaments or other 'surgical gymnastics', recommended by the orthopaedic surgeons.

This case is of interest from many points of view:—

1. The rare occurrence of a fracture dislocation in a child of 6 months (if we are to accept that diagnosis).
2. The possibility of improvement even after 16 years of trismus.
3. The complex nature of the nerve lesions arising from such a condition.
4. The explanation of the thickening of the ascending ramus of the mandible and the exclusion of osteoma as the cause of this thickening.

The problem of differentiation from an osteoma arose in this case and the interesting anatomical problems and rarity of the lesion justifies its inclusion at this stage.

It is no easy matter to differentiate the fibro-osseous group of tumours in the mandible. The differential diagnosis includes:

1. Cystic lesions (see the case thought to be one of a dentigerous cyst).
2. Osteitis fibrosa cystica (parathyroid tumour).
3. Central fibroma and malignant fibrosarcoma, xanthoma, osteosarcoma.
4. Fibrous odontoma.
5. Neurofibroma.
6. Osteoclastoma, especially the solid variety.

OSTEOCLASTOMA—GIANT CELL TUMOUR

1. *Peripheral Osteoclastoma.* This type of growth appears typically as a myeloid epulis with a red or purple gum swelling. The alveolar bone is usually expanded and thinned, there may be 'egg-shell' crackling or the whole surface may be soft. The tooth, or teeth, in relation to the tumour are displaced by the tumour.

2. *Central Osteoclastoma.* Although still related to the teeth and the alveolar margin, central tumours spread centrally into the neighbouring maxillary antrum or bulge through the palate. The cystic growths in these cases rarely give any cystic areas on the surface although these may be found by examining the anterior maxillary wall through the superior buccal sulcus. The cyst is usually big. If small, it is more likely to be an adamantinoma and the cystic form must be distinguished from the dentigerous cyst; but in these cases the crown of an



Fig. 3. Solid giant cell tumour of the upper jaw.
Fig. 4. Mixed 'parotid' tumour of the palate.

unruptured displaced tooth is to be found projecting into the cavity of the cyst.

Solid osteoclastomas (Fig. 3) may occur in the upper jaw⁵ and give the clinical picture of a solid tumour which causes bulging of the palate, anterior maxillary wall and extension into the maxillary antrum.

Case History. A.L., a female aged 30 years, was admitted on 27 November 1945 with swelling of the hard palate for one month. It was slightly painful and had been growing slowly.

Physical Examination showed a hard, smooth lobulated mass bulging into the hard palate and on the cheek, on the left side opposite the posterior molar teeth. The upper third molar on the left side was just a stump. All teeth were present; there was no ulceration; her general condition was good and there was no evidence of cervical glandular enlargement.

31 November 1945. The tumour was excised. A normal temperature lasted for the first 4 days after the operation; a mild fever was noted on the fourth and fifth days (to 99° F and 99.6° F).

Histological Report: A solid myeloid epulis (osteoclastoma). 13 December 1945. Sudden pain was felt in the left side of the cheek. The patient died of a pulmonary embolus.

Treatment. The central type of osteoclastoma of the upper jaw forms one of the group of solid, benign upper jaw tumours. In these cases it is not difficult to excise completely the whole tumour with a margin of normal mucosa and bone around it. This may be termed 'biopsy excision'. It implies the uncertainty of diagnosis without histological examination, the necessity for good exposure to 'excise', and that the tumour is operable, being within the bounds of surgical excision, using intra-oral or other extended incisions, depending on the extent of the tumour.

MIXED SALIVARY TUMOUR OF THE PALATE

Case History. L., a Bantu female, aged 36, had a swelling of the palate, of 2 years' duration. A large tumour bulging the palate and cheek into the nose and onto the soft palate

was visible. The ulceration present was not typical of carcinoma.

3 May 1945. Excision of the growth including the medial and anterior wall of the antrum and hard palate was done, with cauterization of the soft palate. A skin graft over a Stent's composition mould was applied to raw areas, using a cap splint extension bar.

21 December 1948. No evidence of recurrence was noted.

Discussion. Mixed parotid tumour of the palate is common. Any tumour of the hard palate, or rarely of the soft palate, may be of this type (Figs. 4 and 5). There may be the history

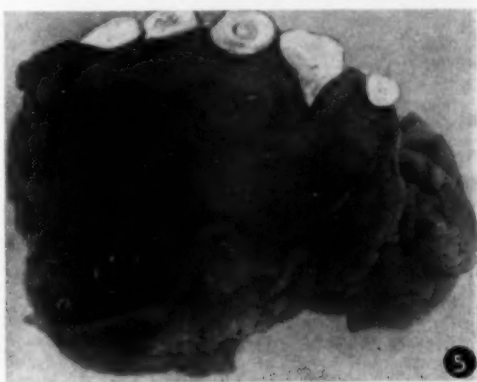


Fig. 5. Mixed tumour of palate.

of a small swelling of the palate for years, with recent growth. The tumour is firm and may enlarge to give an appearance indistinguishable from that of a malignant tumour. Ulceration may occur. In the Bantu, especially, the histories are unreliable and the patient may state that the swelling and growth has only been present for a short time, measured in months.

The nature of 'mixed parotid tumours' has been the subject of considerable dispute. There is a considerable backing for the view that these are basal cell tumours (Krompecher) and may be reported as basal celled, aberrant salivary tumours of the palate. Occasionally cystic degeneration may be a prominent feature of the growth which may be soft almost like the cystic hygroma of the neck.

Treatment. The mixed parotid tumour of the palate is best treated by the method of 'biopsy excision'.

FIBROUS EPULIS

This growth, situated on the gum between the teeth is sometimes very vascular and may be reported as a fibro-angiomaticous epulis. These tumours do not contain the typical osteoclasts of a giant-cell tumour.

Case History. Aaron, a Bantu male aged 18 years, was admitted with a swelling of the gum and alveolus of 8 months' duration (Fig. 6). The swelling started in December 1944 in the region of the right upper central incisor and between this and the lateral incisor. The swelling was increasing in size, it had never bled and was painless; it was about the size of a walnut situated between the incisor teeth on the right upper jaw, extending anteriorly and posteriorly into the palate. The colour of the tumour was plum red.

The X-ray showed osteolytic erosion about the root of the right upper central incisor over a limited and rather regular area. A pre-operative diagnosis of fibrous epulis was made.

Operative removal included a portion of the alveolus above and on either side of the involved tooth. There was some haemorrhage in the process which, however, settled with local pressure. The right antrum was not opened into and an uninterrupted recovery followed. The tumour mass on section showed a homogeneous tissue well defined in its circumference

and a dull whitish pink colour. A histological report showed the presence of a vascular fibroma with no evidence of malignancy.



Fig. 6. Fibrous epulis.

Occasionally a sarcoma of the fibrosarcoma type may start in the gum in relation to the interval between the teeth and a fleshy non-encapsulated growth enlarges in all directions and may spread through the cancellous alveolar bone. The diagnosis is difficult in the early stages from the 2 preceding conditions.

Treatment. The epulides may be classified together from the point of view of treatment. The tumour and the involved teeth are removed widely so that some normal mucosa and bone are removed with the tumour. This is generally not a difficult operation as these tumours are usually small.

HAEMANGIOMA OF THE UPPER JAW

This lesion is usually associated with capillary or cavernous haemangioma of the face in the region of the maxillary division of the trigeminal nerve. In the case of the maxilla, a capillary haemangioma may occasionally cause bleeding and electric coagulation may be done when bleeding is persistent. Deep X-ray treatment may be of considerable benefit.

A cavernous haemangioma of the maxilla may appear as a large tumour mass and the diagnosis of a malignant tumour may be made. The tumour may be compressible. There is no place for surgical excision of the maxilla as bleeding would be excessive. However, X-ray therapy, or needle electric coagulation, can bring about considerable improvement.

DENTIGEROUS CYSTS¹⁰

In the upper jaw these can enlarge (Fig. 7) to a considerable size, with the characteristic presence of an unerupted displaced tooth, the crown of the tooth projecting into the cyst. In all cysts it is important to examine the cyst

lining; especially is this so in small cysts where complete excision is always possible. In the larger cysts it is justifiable, in some cases, to use the Parlsch procedure and to remove the bony mass over the cyst and the lining of the cyst on this surface thus marsupializing the cyst by suturing the mucosa of the mouth to the lining membrane of the cyst and packing it. However, it is better to destroy the cyst lining by thorough curettage and, better still, to excise the cyst completely, which is possible by reason of its expansion into the maxillary antrum, whence the limits of the cyst can be defined. A Caldwell-Luc exposure with drainage may be sufficient.



Fig. 7. Dentigerous cyst.

An example of the difficulties in diagnosis of jaw tumours is seen in the following case:

Mrs. J. W., aged 23, had noticed for 6 years a swelling of the jaw in the region of the right canine and premolar teeth. Recently it had started to ache and it seemed to have grown more during a recent pregnancy. On examination a firm bony swelling was present, expanding the mandible, and there was no evidence of swelling in the parathyroid region or in any of the bones. There was only one tooth posterior to the canine on that side with a small gap between them.

On X-ray, a confident diagnosis of dentigerous cyst was made. There was no trabeculation but there was an unerupted tooth within the cyst. Because of the danger of a dogmatic diagnosis in such cases, it was no great surprise to find at operation a fibro-osseous constitution of the involved tissues. The histological report showed the presence of bone trabeculae interspersed with loose cellular connective tissue in which a few osteoclastic giant cells could be seen. It read: 'The histological features are those of the osteitis fibrosa type.'

The values for serum calcium and blood inorganic phosphate (as P) were 11.3 mg. % and 11.8 mg. per 100 c.c. and 3.8 and 3.3 mg. per 100 c.c. respectively on two occasions. The alkaline phosphatase was 4.5 King-Armstrong units.

Remarks. A confident X-ray diagnosis of a dentigerous cyst

revealed a fibrous osteitis. The differential diagnosis could include:—

1. Osteitis fibrosa cystica (parathyroid tumour).
2. Osteofibroma.
3. Giant cell osteoclastoma.
4. Polyostotic fibrous dysplasia.
5. Fibrous odontoma.

Absence of involvement of other bones and a normal blood chemistry for parathyroid tumours should exclude (1). The localized nature of the 'cyst-like' lesion seems to exclude (2). There was no evidence of unilateral involvement of other bones, endocrine changes or pigmentation, so that (4) could be excluded.

There is no osteofibrous odontoma, to my knowledge, although the misplaced tooth would suggest this origin, so that perhaps we can call this condition a 'reaction' to the pressure of the misplaced, unerupted tooth

presenting as an osteoclastoma. There is a body of opinion which believes that in certain circumstances an osteoclastoma is a 'reaction' rather than a tumour and that the nature of the cellular reaction is the important feature in making the diagnosis of 'reaction' or tumour.

The interesting clinical point is the apparently obvious X-ray finding of dentigenous cyst, although on close inspection a stippled matrix can be seen, suggesting a bony structure (Figs. 28 and 29).

SUMMARY

1. Benign tumours of the jaw are classified.
2. Diagnosis of osteofibroma, osteoma, 'cystic' lesions, osteoclastoma, etc., may be far from easy.
3. Cases of massive dentigenous cysts are illustrated.

VERENIGINGSNUUS : ASSOCIATION NEWS

SOUTH WEST AFRICA BRANCH: ANNUAL GENERAL MEETING

The Annual General Meeting of the Branch was held on 20 February at the residence of the President, Dr. McRobert.

The President referred to the death of Dr. Vivier, and asked the members to rise in silent tribute.

After the Annual General Report and the Financial Statements had been submitted, the office-bearers for the ensuing year were elected:

President: Dr. K. R. Momberg;
Vice-President: Dr. G. H. McRobert;
Member of Committee: Dr. H. J. Steyn (representative on the Federal Council).
Honorary Secretary: Dr. J. E. Fischer.
 The membership now stands at 50, including nearly all the doctors in practice in the Territory.

OFFICIAL ANNOUNCEMENT : AMPTELIKE AANKONDIGING

MEDICAL ASSOCIATION OF SOUTH AFRICA : DIE MEDIESE VERENIGING VAN SUID-AFRIKA

FEDERAL COUNCIL

Notice is hereby given that a meeting of the Federal Council will be held at Medical House, 5 Esselen Street, Johannesburg, on 24 April 1952 at 9 a.m.

AGENDA

1. Notice convening the meeting.
2. Proxies.
3. Minutes of previous meeting (circulated).
4. Matters arising out of the minutes.
5. Financial statement by the Honorary Treasurer.
6. Report of the Executive Committee.
7. Reports of other Committees.
8. Reports deferred from the previous meeting.
9. Notices of motion transferred from the previous meeting.
10. New notices of motion.
11. Other business.

A. H. Tonkin,
Medical Secretary.

Medical House,
 35 Wale Street,
 Cape Town.
 23 March 1952.

FEDERALE RAAD

Kennis geskied hiermee dat 'n vergadering van die Federale Raad gehou sal word op 24 April 1952, om 9 vm., te Mediese Huis, Esselenstraat 5, Johannesburg.

AGENDA

1. Kennisgewing van vergadering.
2. Volmagte.
3. Notule van vorige vergadering (reeds uitgestuur).
4. Sake vermeld in die notule.
5. Geldelike verslag deur die Ere-Tesourier.
6. Verslag van die Uitvoerende Komitee.
7. Verslag van ander Komitees.
8. Verslag uitgestel van die vorige vergadering.
9. Kennisgewings van voorstelle oorgedra van die vorige vergadering.
10. Nuwe kennisgewings van voorstelle.
11. Ander besigheid.

A. H. Tonkin,
Mediese Sekretaris.

Mediese Huis,
 Waalstraat 35,
 Kaapstad.
 23 Maart 1952.

PASSING EVENTS

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH

At a Quarterly Meeting of the College held on 5 February 1952, the President, Dr. W. A. Alexander, in the Chair, the following were elected Fellows of the College:
 Charles Mann Fleming, M.A., M.D. (Glasg.).
 Walter Henderson, M.D. (Edin.).
 Henry Edmund Seiler, M.D. (Glasg.).
 Ian Hunter Lockhart Gillies, M.D. (Glasg.).
 William Hugh Galloway, M.B. (Edin.).

The following were elected Members of the College:

William Boyd, M.B. (Edin.).
 Irene Parker Rowlands, M.R.C.S., L.R.C.P., F.R.F.P.S.G.
 Sidney Stein, B.Sc. (Cape Town), M.R.C.S., L.R.C.P.
 Robert Orton, M.D. (Leeds).
 John Norman Armour, M.B. (N.Z.).
 Grainger Wilson Reid, M.B. (Edin.).
 Vincent Daniel Bayliss, B.A. (Madras), M.B. (Madras).
 Suraj Prakash, M.B. (Punjab).

Harold McDonald Forde, M.R.C.S., L.R.C.P.
 Nathan Gordon, M.B. (Witwatersrand).
 Rajeshwar Prasad, M.B. (Patna).
 Balawant Mahadeo Kher, M.D. (Bomb.).
 Leon Albert, M.B. (Cape Town).
 John Gant, B.Sc. (Cape Town), M.B. (Cape Town).
 Mahadeo Prasad Mehrotra, M.D. (Lucknow).
 Jean Clyne Taylor, M.B. (Aberd.).
 Harry Black, M.B. (N.Z.), M.R.A.C.P.
 Andrew Cairns Douglas, M.B. (Edin.).
 Patrick Cushny MacGillivray, M.B. (Edin.).
 Mohomed Ahmed Botawala, M.B. (Bomb.).
 Suresh Dhireajlal Store, M.D. (Bomb.).
 Robert Stuart Malcolm Douglas Inch, M.B. (Edin.).

NUFFIELD DOMINION TRAVELLING FELLOWSHIP IN MEDICINE 1953

Applications are invited not later than 17 May 1952 for this Fellowship.

Copies of the regulations and application forms may be obtained by applicants (who should normally be between 25

and 35 years of age) from the Registrars of the various South African Universities or from the Honorary Secretary, Nuffield Foundation South African Liaison Committee, c/o P.O. Box 395, Pretoria.

RADIOLOGICAL SOCIETY OF SOUTH AFRICA: TRANSVAAL BRANCH

At the Annual General Meeting of the above Society held on 19 February 1952, the following office-bearers were elected:

Chairman: Dr. J. Nel.
 Vice-Chairman: Dr. H. Jackson.
 Honorary Secretary: Treasurer: Dr. M. H. Fainsinger.
 Committee Members: Drs. D. Gold, J. Kaye, F. McLachlan and D. R. Morris.

FIRST INTERNATIONAL CONGRESS OF DIETETICS

This Congress will be held from 7-11 July 1952 in the Royal Tropical Institute, Amsterdam. Those interested are invited to communicate immediately with Miss Diane J. Ten Haaf, General Secretary, Executive Committee, 13 Pomonaaplein, The Hague, Netherlands.

REVIEWS OF BOOKS

VITAMIN DIGEST

Vitamins—A Digest of Current Knowledge. By Leslie J. Harris, Sc.D., D.Sc., Ph.D., F.R.I.C. (Pp. 224 + xii, with 84 illustrations and 111 structural formulae. 15s.) London: J. & A. Churchill Limited. 1951.

Contents: 1. Preliminary Outline. 2. Vitamin History. 3. Vitamin B and Beri-Beri. 4. The Vitamin B₁₂ Complex, and the Pellagra-preventing (P-P) Factor: Nicotinamide. 5. Vitamin C and Scurvy. 6. Vitamin D and Rickets. 7. Vitamin A and Xerophthalmia. 8. Vitamins E and K. 9. Three Additional B₁₂ Vitamins. 10. Other Vitamins. 11. Dietetics and Applications. Appendix. Glossary. Addendum. General Bibliography. Subject Index. Author Index.

This little book claims, with some justification, to be a 'digest of current knowledge'. It is attractively written, well illustrated, and combines scientific as well as clinical interest.

Dr. Harris, who is Director of the Dunn Nutritional Laboratory, has himself made distinguished contributions to the field of vitamin research, and he is, therefore, most eminently suited to write this volume which will be of interest and assistance to students of science as well of medicine.

UTERINE AND PELVIS

Renal Pelvis and Ureter. By Peter A. Narath, M.D. F.I.C.S. (Pp. 429 + xii, with 264 figures. \$12.50.) New York: Grune and Stratton, Inc. 1951.

Contents: 1. The Embryology of the Ureter and the Renal Pelvis. 2. The Final Form of the Renal Pelvis. 3. The Normal Anatomy of the Ureter and the Renal Pelvis. 4. The Normal Histology of the Renal Pelvis and the Ureter. 5. The Dynamics of the Upper Urinary Tract. 6. The Tonus of the Urinary Tract. 7. Resorption and Absorption in the Upper Urinary Tract. 8. Various Forms of Extravasations. 9. The Roentgenography of the Upper Urinary Tract. Bibliography. Index of Authors. Index of Subjects.

If it is accepted that an intimate knowledge of the normal configuration and function of the renal pelvis and ureter is a prerequisite to the fuller understanding of their pathological conditions, then this monograph is fully justified. The author concerns himself mainly with a detailed discourse upon the anatomy and physiology of the kidney and the ureter, other than what is usually found in the standard textbooks. The embryological development is described, particularly in support of several new concepts which are the author's original ideas.

As a practising urologist the reviewer sometimes felt that the detail was purely of academic interest. But this does not detract from the value of the work, since what seems theoretical to-day may become practical to-morrow, and there is no doubt that this book will find a valued place on the shelf of all those interested in the finer points of renal anatomy and physiology.

The author makes claim to have filled a gap in the urological literature, and one must agree with him that this is the first book compiling scientific data about the normal renal pelvis and ureter.

Especially to be mentioned are the extremely good reproductions of X-rays and models with which the work is amply illustrated. The text frequently calls for close attention in order to follow the meaning, and the book is hardly one for the casual reader. It is meant for the earnest student and research worker, and its profound study is well worth while.

A valuable portion relates to the problems of 'pyelovenous backflow', a term which the author depletes and suggests the following nomenclature to describe 'extravasation' from the renal pelvis, viz. pyelocalicular backflow, pyelovenous transflow, sinolymphatic absorption, and sinovenous ingression. The terms are unfamiliar, which is perhaps explained by the fact that the author is not primarily English-speaking. His arguments in support of these terms, however, are sound.

The final chapter is devoted to the historical background and relative merits of intravenous urography and retrograde pyelography. Throughout the book there is ample evidence that the author has made good use of the world bibliography and each chapter is preceded by a historical review.

GENERAL PHYSIOLOGY

A Textbook of General Physiology. By Hugh Davson, D.Sc. (Lond.). (Pp. 659 + xiii, with 288 illustrations. 45s.) London: J. & A. Churchill Limited. 1951.

Contents: Part I. The Structural Basis of Living Matter. 1. The Individual Cell. 2. Submicroscopic Structure of the Cell. 3. The Nucleoprotein Structures. 4. External Structures.

Part II. Transformations of Energy in Living Systems. 5. Utilization of Chemical Energy. 6. Heat Production and Heat Loss of Animals.

Part III. The Transport of Water and Solutes. 7. Simple Equilibria. 8. Permeability and the Structure of the Plasma Membrane. 9. The Gibbs-Donnan Equilibrium and the Permeability of Capillaries. 10. The Cerebrospinal Fluid. 11. Ionic Equilibria, Bioelectric Potentials, and Active Transport. 12. Absorption from the Intestine. 13. Secretion of Acid by the Stomach. 14. The Kidney and Osmotic Regulation.

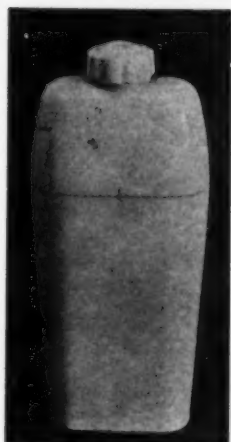
Part IV. Characteristics of Excitable Tissue. 15. Excitability and Propagation of the Impulse. 16. Transmission of the Impulse and the Sensory Response.

Part V. The Mechanism of Contraction of Muscle. 17. Mechanical and Thermal Aspects. 18. Structure and Composition of Muscle in Relation to Function.

Part VI. Light: Its Effect On, and its Emission By, the Organism. 19. Photosynthesis and Photodynamic Action. 20. The Pigmentary Response to Light. 21. Bioluminescence. 22. Photochemical Aspects of Vision. Index.

Dr. Davson is well known to overseas students for his lectures on the *Physiology of the Eye*, which have already been published in book form. He has now extended his accomplishments to include this present volume which aims to be a general textbook for students of physiology.

From the point of view of the post-graduate student who wishes to brush up on rather more than he can find in the usual run of textbooks, this volume may be of some use, although it meets with rather serious competition from the larger, well-established and well-recognized textbooks and reference books already in the field. For the medical student,



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however, the field covered is not sufficiently extensive for his examination purposes, although he will undoubtedly profit much by the advice, given by the author himself in the preface, 'to browse and to skip with agility when the going becomes heavy'.

Dr. Davson's book covers the field it sets out to do, viz. general physiology; and, as the table of contents indicates, this automatically imposes considerable limitations on its usefulness.

MEDICAL TERMINOLOGY

Medical Terminology Made Easy. By JeHarned. (Pp. 275 + xv. \$5.00.) Chicago: Physicians' Record Company. 1951.

Contents: 1. Introduction to the Origin of Medical Words. 2. Prerequisites to Mastery of Medical Terminology. 3. General and Special Practices in Medicine. 4. Prefixes and Pseudo Prefixes. 5. Suffixes and Pseudo Suffixes. Part I. Part 11. 6. Medical Word Signs. 7. Selected Medical Vocabulary. 8. Medical Case Records and Words Commonly Found in Them. Part I. Part 11. 10. Abbreviations and Symbols. 11. Anesthesia Agents and Technics. 12. Medical Equivalents of Lay Terminology. Index.

The author, who has for long been associated with the field of medical librarianship, has produced an extremely interesting volume which is virtually an encyclopaedic glossary of medical terms.

The book will be of great value to many students of first-aid and home nursing and will undoubtedly also assist the numerous generations of medical students who now approach their professional studies without necessarily having had a classical education. The volume should also be an excellent handbook for secretarial staffs concerned with preparing medical case records and for lawyers who have to cope with the often unnecessarily polysyllabic testimony of the medical expert.

SYSTEMIC OPHTHALMOLOGY

Systemic Ophthalmology. Edited by Arnold Sorsby, M.D., F.R.C.S. (Pp. 712 + Index + xiv, with 309 figures and 38 colour plates. 97s.) Butterworth & Company (Africa) Limited, 1 Lincoln's Court, Masonic Grove, Durban. 1951.

Contents: Part I. Prenatal Pathogenic Influences. 1. Some Concepts Derived from Experimental Embryology of the Eye. 2. The Relation of Prematurity to Ocular Anomalies in Post-Natal Development. 3. Intra-Uterine Infections. 4. Genetically Determined Anomalies.

Part II. Inflammation, Allergic Reactions, and Infections. 1. Inflammation. 2. Allergy. 3. Acute General Bacterial Infections. 4. Chronic Bacterial Infections. 5. Acquired Syphilis and Other Spirochaetal Infections. 6. Viral and Rickettsial Diseases. 7. Metazoan Infections. 8. Tropical Diseases. 9. Mycotic Infections.

Part III. Nutritional, Metabolic and Endocrine Disturbances. 1. Nutritional Deficiency. 2. Metabolic Disorders. 3. Endocrine Disorders.

Part IV. Central Nervous System. 1. Psychological Disturbances. 2. Organic Affections.

Part V. Cardiovascular and Haemopoietic Systems. 1. Cardiovascular Affections. 2. Blood Dyscrasias and Affections of the Lymphatic System.

Part VI. Other general disturbances. 1. Dermatoses with Ocular Manifestations. 2. Maternal and Neonatal Disorders. 3. Some Neighbourhood Affections. 4. Physical and Chemical Agents. 5. Metastes. Senescence and Death. Index.

The number of publications on ophthalmology is steadily increasing. Of these some have been good and others indifferent. After reviewing this book, one has no hesitation in classifying it as good. The need for an authoritative work on medical ophthalmology, in its widest sense, has long been felt, and this need has been filled by the publication of *Systemic Ophthalmology*.

Under the editorship of Arnold Sorsby and with the collaboration of a group of well-known English and American authorities, a comprehensive and concise work covering a very wide field has been produced. While it will appeal chiefly to the ophthalmologist, physician and neurologist, some of the chapters will also be of interest to the paediatrician, obstetrician and dermatologist.

It is a collective work of established knowledge and each systemic aspect of eye disease has been dealt with.

Of special interest in Part I are the chapters dealing with *Ocular Anomalies of Prematurity and Intra-uterine Infections*. It is pointed out that, with improved paediatric care and decreased neonatal mortality among babies, retro-lental fibrosis has become a major problem of ophthalmology in the United States.

The congenital ocular defects following maternal rubella are

described fully. It has been suggested that females should not pass through childhood without having had rubella. If necessary, there should be a deliberate exposure to infection. The difficult question of terminating pregnancy in a mother suffering from rubella during the first four months of pregnancy must be considered.

An excellent description of ocular tuberculosis is given by Alan Woods.

The ophthalmological features and localizing signs of the various cerebral tumours are stated with great clarity. From a practical point this section will be found very useful.

It is impossible to mention the many outstanding features of this book in a brief review. One can only recommend it to the reader who will find this out for himself.

Systemic Ophthalmology is well written and well printed, with many excellent illustrations, coloured plates, photographs, etc.

The publishers, Butterworth's Medical Publications, maintain the high standard that they have set themselves with their 'eye' publications.

UNDERSTANDING CHILDREN

Understanding Your Child. By Lionel Stebbing. (Pp. 107. 5s. 6d.) London: New Knowledge Books. 1951.

Contents: 1. Introduction. 2. The Nature of Childhood. 3. From Birth to the Seventh Year. 4. Seventh to the Fourteenth Year. 5. The Four Temperaments. 6. Feeding the Growing Child. 7. Fourteenth to the Twenty-First Year. 8. The Problem of Discipline. 9. The Sex Question. 10. Children's Questions. 11. The Value of Fairy Tales. 12. The Child's Playtime. 13. The Importance of the Right Toys. 14. The Effect of Wireless, Television and the Cinema on the Child. 15. The Difficult, the Sub-Normal, and the Backward Child. 16. Conclusion. 17. Author's Note.

This little book is intended for parents to enable them to understand the behaviour of their children as they grow up.

It discusses children in three age groups, viz. from birth to the seventh year; from the change of teeth to puberty, and then from the fourteenth to the twenty-first year.

It treats of such subjects as speaking, walking, thinking, discipline, children's questions, etc. It also gives indications of helpful methods which could be used to help children to grow up as useful adults.

UNDERNUTRITION

Studies in Undernutrition, Wuppertal 1946-9. By Members of the Department of Experimental Medicine, Cambridge, and Associated Workers. Medical Research Council Special Report Series No. 275. (Pp. 404 + xiv, with illustrations and photographs. 12s. 6d.) London: His Majesty's Stationery Office. 1951.

Contents: 1. The German Background. 2. The History. Significance and Aetiology of Hunger Oedema. 3. The Effect of Undernutrition on the Skin. 4. Radiological Observations on the Alimentary Tract. 5. Hepatic Structure and Function. 6. Enlargement of the Parotid Glands. 7. Neuromuscular System: Tendon Reflexes and Galvanic Responses. 8. Emotional Disturbances and Behavioural Reactions. 9. The Effect of Undernutrition and of Posture on the Volume and Composition of the Body Fluids. 10. Aspects of Renal Function and Water Metabolism. 11. Serological Responses to Antigenic Stimuli. 12. The Osmotic Pressure of the Serum Proteins. 13. The Electrophoretic Analysis of Sera. 14. The Ratio of Arginine to Lysine in the Serum Proteins. 15. Serum Cholinesterases. 16. The Enzyme Activities of the Red Blood Cells. 17. Sedimentation Rates. 18. Prothrombin Times. 19. The Excretion of Diastase in the Urine of Undernourished Persons. 20. Cardiac Output and the Peripheral Circulation. 21. Radiological Observations on the Size of the Heart. 22. Vasomotor Responses to Local Cold. 23. Capillary Resistance and Permeability. 24. Response of the Blood Pressure and Pulse Rate to Postural Changes and Exercise. 25. Radiological Observations on the Bones. 26. The Absorption and Excretion of Nitrogen, Calcium, Magnesium and Phosphorus. 27. The Response to Unlimited Food. 28. The Size of the Baby at Birth and the Yield of Breast Milk. 29. The Volume and Composition of Human Milk. Appendix: Laboratory Techniques.

This is one of a series of important publications detailing the effects of undernutrition and malnutrition resulting from the second world war. It is a term report by Dr. R. A. McCance, Professor of Experimental Medicine in the University of Cambridge and 19 co-authors, constituting a Research Unit set up by the Medical Research Council of Britain in June 1946 in the Wuppertal District of the German Ruhr. The Unit prosecuted its researches there for two and a half years.

The relationship of this publication to the post-war nutrition publications of the two world wars has been reviewed in an

Editorial in the *British Medical Journal* of 1 September 1951. The comprehensive nature of the studies undertaken is detailed in the table of contents above. It will constitute for a long time an important source of reference to the clinical and biochemical results of undernutrition induced by war conditions upon a population presumably previously well-nourished, and the authors must be admired for the thoroughness and intensiveness of their investigation.

In this review attention will be directed particularly to the relationship of the problems investigated to those problems of malnutrition which are endemic in Central and Southern Africa, and which have constituted a fruitful field of research in the Union of South Africa.^{1,2} The term undernutrition which is used in the publication under review, is usually applied to a clinical condition resulting from the experience over a period of at least some months of a diet which is quantitatively rather than qualitatively deficient. The term malnutrition, in contrast, is usually applied to a similar experience of a diet which is qualitatively although not necessarily quantitatively deficient. In other words, undernutrition means essentially a deficiency of calories, while the term malnutrition is usually reserved for states in which deficiency of vitamins and minerals is particularly evident. Undernutrition implies marked loss of weight. Malnutrition may be present even though the subject's weight may be within the normal range for his height and age. The term malnutrition is, however, frequently applied to patients who are markedly underweight, particularly when there is an addition of definite evidence of vitamin or mineral deficiency. The conventional use of these two terms has not quite caught up with the shift in emphasis in qualitatively deficient diets from vitamins and minerals to protein. Presumably states of defective nutrition resulting from diets which are either quantitatively or qualitatively deficient in protein are states of malnutrition whether weight is markedly reduced or normal.

The significance of this discussion on terminology is particularly apparent in two of the best chapters in this M.R.C. Report, viz. those on the history, significance and aetiology of hunger oedema, and the effect of undernutrition on the skin. In the first of these chapters, McCance brings out very well the contrast between hunger oedema and other types of nutritional oedema, viz. the oedema of beri-beri, epidemic dropsy, and what McCance calls 'The Infantile Syndrome', better known in this country as kwashiorkor or malignant malnutrition. He gives cogent reasons for regarding all of these varieties of nutritional oedema as distinct from hunger oedema, which he proceeds to describe and define. In his description there is considerable overlap with other types of nutritional oedema, and in definition he has to admit that as the exact mechanism is still uncertain, the condition cannot be defined accurately. From the point of view of pathogenesis, he states that 'an increase in the percentage of the body occupied by extracellular fluid is the essential departure from the normal organization of the body water in undernutrition' and further, 'it is suggested that the replacement of body space previously occupied by fat and cellular tissue is an important cause of the increase in extracellular fluid'. Although a very strong case has been made, it is not yet clear that the oedema of undernutrition can clearly be differentiated from the oedema of malnutrition.

In the chapter on the skin there is an excellent description, with plates, of states of xerosis, follicular keratosis, cracking, flaking and desquamation of the skin surface in states of undernutrition. In this connection McCance and Barrett state that 'it may be assumed that the undernourished people whose skins were examined in Germany, were not suffering from a deficiency of vitamin A or C but that their deficiency had been primarily one of calories'. The scientific basis for this statement seems to have been established by the determination of the concentration of vitamin A in the serum done by Moore and reported on page 89, but the evidence for the absence of a state of vitamin C sub-nutrition is not quite so clearly recognizable from the text of the publication. In general, detailed evidence of the exact constitution of the diet consumed

by the patients is disappointingly absent. In the case of German civilians, the reason for this is quite apparent in the account of the numerous methods by which the official diet was supplemented, but the information might have been brought out in more detail in relation to patients in hospitals and prisons.

The first chapter gives an interesting account of the reactions on the 'behavioural side' of a population suddenly submitted to intense dietary restriction. Black market activities have been well documented in many publications, but the account of 'Hamstering' or expeditions to the country in search of food supplements is very interesting.

BLOOD DISEASES

Handbook of Diseases of the Blood. By A. Piney, M.D. M.R.C.P. (Pp. 213 + x, with illustrations, some in colour. 21s.) London: Harvey and Blythe, Limited, 1951.

Contents: 1. Symptoms and Signs of Blood Diseases (Clinical). 2. Signs of Blood Diseases (Haematological). 3. Types of Anaemia. 4. Anaemia Due to Loss of Blood. 5. Iron Deficiency Anaemias. 6. Anaemias due to Deficiency of a Specific Haemopoietic Substance. 7. Anaemias due to Deficiency of a Specific Substance (continued). 8. Haemolytic Anaemias. 9. Haemolytic Anaemias (continued). 10. Myelophthisic Anaemias (True and False). 11. The Leukaemias. 12. Acute Leukaemias. 13. Myelomatosis. 14. Increased Erythropoiesis. 15. The Reticuloses. 16. Storage Reticuloses. 17. Haemorrhagic Diseases. 18. Glandular Fever. 19. Agranulocytosis. 20. Symptomatic Blood Changes. 21. Epilogue. Index.

The opening chapter begins as follows: 'The persistent or progressive effects of past infection and, sometimes, even if their treatment is perhaps more marked in connexion with haemic disorders than with most others; so many factors influence the composition of the blood and its functional state that a very full history is essential'.

It does not make sense, and that unfortunately applies to the rest of the book. According to the author it is intended to be 'a distillate of the knowledge that has been acquired, first at the bedside and secondly in the various laboratories in which haematology (and indeed cytology as a whole) is pursued'. The still must have leaked badly, for the bouquet is like water contaminated with bits of wrong information and printing errors: even a general practitioner would hesitate to accept 12-15 grammes per c.c. of haemoglobin as a normal figure, and would be startled to find the formula for the colour index as $\frac{\text{Haemoglobin percentage}}{\text{Red corpuscles in millions} \times 100}$.

The haematocrit is not mentioned in the book at all, whereas a lot of space is devoted to spleen puncture—hardly the practitioner's province.

Medical science, even the bedside type, does not willingly submit to casual and careless treatment.

The scanty and inaccurate index precludes the use of the book as a handbook.

ATLAS OF FRAMBOESIA

Atlas of Framboesia: A Nomenclature and Clinical Study of the Skin Lesions. By Kenneth R. Hill, M.D., Dr. R. Kodijat and Dr. M. Sardadi. (Pp. 19 + 42 illustrations. 5s., \$1.00, Sw. fr. 4.00.) World Health Organization Monograph Series No. 5. Geneva: World Health Organization, 1951.

Contents: Introduction. 1. Initial Framboesoma (Typical and Fungating). 2. Initial Framboesial Ulcer. 3. Papillomatous Framboesia. 4. Condylomatous Framboesia. 5. Paronychia of Framboesia. 6. Circinate Framboesia. 7. Erythematous Framboesia. 8. Macular Framboesia. 9. Papular Framboesia. 10. Desquamative Framboesia. 11. Plantar (Palmar) Framboesia (Ulcerative or Non-ulcerative). 12. Mucosal Framboesia. 13. Lupoid Framboesia. 14. Ulcerative Framboesia. 15. Pigmentary Framboesia. 16. Gangosa. Summary. References. Illustrations.

An *Atlas of Framboesia* prepared by Drs. Hill, Kodijat and Sardadi has just been published as No. 5 in the *Monograph Series of the World Health Organization*.

A large-scale campaign against framboesia (yaws) is at present being conducted by the United Nations International Children's Emergency Fund and WHO in co-operation with the Indonesian Health Administration in several areas on Java, Borneo, and other islands. Professor Kenneth Hill, the first to use Penicillin in the treatment of framboesia, has acted as consultant and Dr. Kodijat as the Director of the Treponematoses Control Project in Indonesia since its inception in 1950.

1. Gillman and Gillman: *Perspectives in Human Malnutrition*. This Journal, 11 August 1951, p. 565. New York: Grune and Stratton.
2. J. F. Brock and M. Autret: *Kwashiorkor in Africa*. Bulletin of the World Health Organization, October 1951.

The interest of the work lies in its series of 42 photographs illustrating the various skin manifestations of frambœsia. It was the feelings of the authors that the present diverse and confusing descriptions of frambœsia should be simplified and, as far as possible, accurate descriptions given. This they have attempted to do. The conditions are divided into 16 main groups, for each of which a concise clinical description is given, the nomenclature being compared with the terminology used by previous authors. The former division into primary, secondary, and tertiary stages is discarded since, according to the authors' experience, the manifestations included in these categories are often contemporaneous.

In addition to being of obvious value to doctors and nurses, the atlas should prove of the greatest help to those auxiliary medical personnel with diagnostic responsibilities but limited medical training who are at present engaged in field programmes.

CLINICAL HAT PEGS

Clinical Hat Pegs for Students and Graduates. By R. J. Willan, C.B.E., M.V.O., V.R.D., M.S., F.R.C.S. (Pp. 116 + x, with 29 figures. 12s. 6d.) London: William Heinemann Medical Books Limited. 1951.

Professor Willan shares with Professor Saint, until recently Professor of Surgery at the University of Cape Town, the distinction of having served under the late Professor Rutherford Morison.

The present little volume is virtually a systematized study of mnemonics, which medical students should find of interest as well as of assistance during the years of clinical study.

In its former guise of *Clinical Notes for Surgeon Probationers*, it was used extensively during World War I.

The new edition is pertinently illustrated and should fulfil a useful purpose.

CORRESPONDENCE

BREAST FEEDING IN EUROPEAN FEMALES

To the Editor: I was interested to read Dr. Gersholowitz's letter in the *Journal* of 1 March 1952 on a tight-fitting brassiere causing a diminution of the milk supply of a European mother. Perhaps it may be this simple cause or some other simple cause which is responsible for such a high percentage of European mothers being unable to breast-feed their babies. I hope that somebody will be able to enlighten us on this matter.

I can only give negative support to Dr. Gersholowitz's observation in that the many hundreds of Bantu mothers I have seen over many years and who are 98% successful in breast-feeding their babies have not worn brassieres or any other tight, constricting band around their breasts. I have often wondered why the Bantu and Coloured mothers are so very successful in breast-feeding their babies.

On the whole, they live on a poor diet lacking in protein, fat, vitamins and mineral salts, except when and where they work in the homes of Europeans. They live under poor hygienic conditions and are subjected to physical hardships such as hard and long hours of work, overcrowding in homes, and poor and uncomfortable sleeping conditions. Yet, in spite of all these adverse factors, they are universally successful in breast-feeding their babies.

It appears to me that their success is largely due to frequent stimulation of the breasts by the babies sucking ever so often (whenever they cry) both by day and night. In passing, I may add that I have hardly ever seen disorders of overfeeding in these breast-fed babies. Vomiting and diarrhoea are practically always associated with an infection of the upper respiratory tract such as tonsillitis or pharyngitis or with otitis media or with an infection of the bowel itself, as evidenced by blood in the stools.

Another important factor in causing success in breast-feeding is that the Bantu mothers know they simply have to be successful in breast-feeding their babies. Failure to do so invariably results in a thin, malnourished, weakly child, because the parents are unable to buy artificial foods and they are, moreover, grossly ignorant about how to feed their babies on artificial foods. They, therefore, are not only willing, but are determined to breast-feed their babies. No flimsy excuses are made to discontinue breast-feeding.

The Bantu and Coloured women seem to be superior biological human beings as far as breast-feeding is concerned. The Bantu women, especially, show little sign of fatigue when they breast-feed their babies at frequent odd times during the day and night.

The fourth reason why non-European mothers are so successful at breast-feeding may be because they themselves were breast-fed. I understand that if calves are reared on artificial food instead of on milk, they fail to produce much milk when they have grown into cows and have produced calves.

Finally, Bantu mothers do not continually read advertise-

ments which encourage them to pin their faith to artificial foods for their babies.

I should like to read the opinions and observations of other doctors on this interesting and highly important subject.

F. A. Lomax.

Johannesburg Building Society Building,
91 Cross Street,
Kroonstad, O.F.S.
6 March 1952.

MEDICAL PRACTITIONERS AND MANIPULATION PRACTITIONERS

[The following exchange of letters is published for the information of our readers at the request of the Executive Committee of the S.A. Medical and Dental Council.—Editor.]

Copy of a letter from the *Mines Benefit Societies Medical Officers' Group to the South African Medical and Dental Council*, dated at Brakpan, 4 January 1952.

MEDICAL PRACTITIONERS REFERRING CASES TO MANIPULATION PRACTITIONERS

It has come to my notice that the Mines Benefit Society has granted recognition to the South African Manipulative Practitioners Association and appear to expect its medical officers to refer cases to members of this Association.

I would appreciate a ruling by the Medical Council on the following points:

1. Is it an offence for a registered practitioner to refer cases to manipulative practitioners?
2. Is it an offence for a registered Radiologist to provide a manipulative practitioner with the plates of a patient and his report, the examination having been previously performed at the request of a registered practitioner?
3. Is it an offence for a registered Radiologist to carry out a radiological examination on a patient referred to him by a manipulative practitioner and to submit the plates and the report to the practitioner?
4. If the above actions constitute offences under Medical Council rules, what are the possible penalties that may be incurred by the medical practitioner?

Copy of a letter from the Registrar of the *S.A. Medical and Dental Council to the Mines Benefit Societies Medical Officers' Group*, dated at Pretoria, 5 March 1952.

With further reference to your letter of 4 January 1952 in regard to the recognition by the Mines Benefit Societies of the South African Manipulative Practitioners Association, I beg to inform you that the matter was considered by the Executive Committee of the Council at its last meeting.

I am now directed to inform you that insofar as questions 1, 2 and 3 contained in your letter are concerned, the answer lies in Rule 9 (i) and 23 of the rules regarding conduct of which this Council may take cognisance. I am enclosing herewith a copy of these rules.*

In regard to your last question, every person registered under the Medical, Dental and Pharmacy Act who has been found after inquiry held by the Council to have been guilty of improper conduct or disgraceful conduct or conduct which when regard is had to his profession or calling is improper or disgraceful, shall be liable to one or other of the following penalties:—

- (a) a caution or a reprimand or a reprimand and a caution; or
- (b) suspension for a specified period from practising or performing acts specially pertaining to his profession or calling; or
- (c) erasure of his name from the register.

[*Rule 9. *Covering.*

(1) Employing as an assistant or locum tenens any person not registered as a medical practitioner or dentist (as the case may be), or acting in collusion or collaboration with any person not so registered, or entering into partnership with any such person, or employing such a person as a paid anaesthetist, or as a paid assistant at an operation.

Rule 23. *Practice of Radiology.*

(1) For medical practitioners or dentists in possession of X-ray plants to take skiagrams for and furnish reports on them to unregistered persons.

(Note.—A medical practitioner or dentist may take skiagrams and furnish reports on them when requested by a patient, provided that he is satisfied that such report is not intended for use by any unregistered practitioner.)

(2) For a dentist to take skiagrams and to report on them to anyone except as far as his legitimate province lies, except in an emergency and where no registered medical practitioner in possession of an X-ray plant is available.—*Editor.*]

STUDENTS' MEDICAL COUNCIL CONFERENCE ON 'CARDIAC DISEASE'

To the Editor: May I invite your attention to a Conference on the subject of *Cardiac Disease* to be held by the Students' Medical Council of the University of the Witwatersrand from 28 April to 3 May.

For the past 8 years this Medical School has held an Annual Conference on a subject of medical interest, viewing it in the light of conditions peculiar to South Africa. Past conferences have included subjects such as Tuberculosis, Venereal Disease, Bantu Medicine and the most successful was last year's Conference on Cancer.

The Conference aims to present problems viewed from the South African angle and to stimulate student activity in local research.

Conference cannot succeed without the co-operation of medical practitioners and students. In this matter you, Sir, can help us immensely by publicizing this Conference in your Journal.

Details of the programme are not yet available but will be announced as soon as possible.

A. Morris,

Director of Publicity: Conference Committee.

Students' Medical Council,
Medical School,
Hospital Hill,
Johannesburg.
10 March 1952.

ETIOLOGY OF CANCER

To the Editor: Dr. Freed has stated 'the impulse in all living organisms is to reach out instinctively, as it were, to the sources of integrative stimulation, and to withdraw or regress from non-integrative stimulation'.

Presumably 'harmonic emotional' responses are love, kindness, charity, etc., and the 'disharmonic' hatred, arrogance, cruelty, etc.

If this is so why should these emotional antagonists

'universally present in living organisms' be considered other than what they are, viz. natural modes of functional adaptive response? Does not the investing of their natural presence with the carcinogenic function of causality create that *causa aequat effectum* which Dr. Freed finds so 'inadmissible' in the approach of the virus theorists Peyton, Roirs and Gye?

Dr. Freed states that these emotional antagonists are 'universal in the organic realm coming into play when the normal course of life activities is hindered or thwarted by unpardonable circumstances'.

What greater scientifically acceptable evidence exists to-day for ascribing to the normal adaptive response to the 'normal course of Life activities' carcinogenic properties, over and above those of the 'unpardonable circumstances' (virus, etc.).

This is not to deny the 'open system' concept but merely to question, by his own tenets, the greater validity of Dr. Freed's own choice of one of the elements of that system of 'interacting factors' over any other. (His original submission was based upon a series of personal postulations.)

Dr. Freed himself says that 'the living organism is a dependent variable exchanging energy with its surroundings' and that this exchange is 'compulsive in character'.

If the living organism cannot help its responses, and is compelled by its surroundings to adapt or die, then 'harmonic integration' is always being achieved if Dr. Freed finds the implications of Darwin's struggle for existence unacceptable.

In other words anger, cruelty, etc., are as normal adaptive responses as are love, kindness, etc., at times anti-social maybe, but at others critically necessary for the survival of the organism. Conceptions involving their derogation constitute nullifications of this normality, and lead to idealized conceptions of man and his responses.

Man is forever in conflict within himself. He perpetually seeks his own particular 'steady state'. To achieve this he reacts with his own, necessary, particular opinions and values of everything, consciously or unconsciously.

This process or function involves rejection—rejection of the unacceptable, the unwanted, the undesirable, the unlikeable, the unlovable, etc.

Man's reaction to his environment is in functional relationship to the stress if he is to survive.

Dr. Freed may find the 'unpardonable circumstances' etiologically unacceptable but twist as he will he has admitted their import, for to quote his own words, 'the virulence, i.e. the carcinogenic power of a virus, is a function of interacting factors operating in the soma, the psyche and in the environment of the human organism'.

Does this not mean no virus, no cancer? Dr. Freed comes near to categorically stating that the soil is more important than the seed, but in so doing goes a long way towards changing his fundamental open system into a closed one.

620 Boston House,
Strand Street,
Cape Town.
10 March 1952.

M. Glass.

A MEDICAL OFFICER FOR THE SUDAN

To the Editor: As Chairman of the local Branch of the *Save the Children Fund*, London, I have received the following request from Headquarters.

A doctor is required to take charge of a team of workers for the Fund in the Sudan (preferably a woman doctor), but if she is not obtainable the post is open to a man.

The doctor would have to carry out investigations into infant mortality, advice to mothers, and give treatment to children of the Latuko tribe in the Torit district.

Accommodation is provided by the Sudan Government and the total salary is £890 per annum. The doctor would be required to sign a contract for 2 years.

If there should be anyone willing to take up this work, I am ready to give all such information in regard to the *Save the Children Fund* as I have, and to put them immediately in touch with Headquarters, London, who would then send the fullest particulars and the contract.

(Mrs.) L. Benjamin,

Chairman of Committee.

Clandon,
Southfield Road,
Plumstead, C.P.

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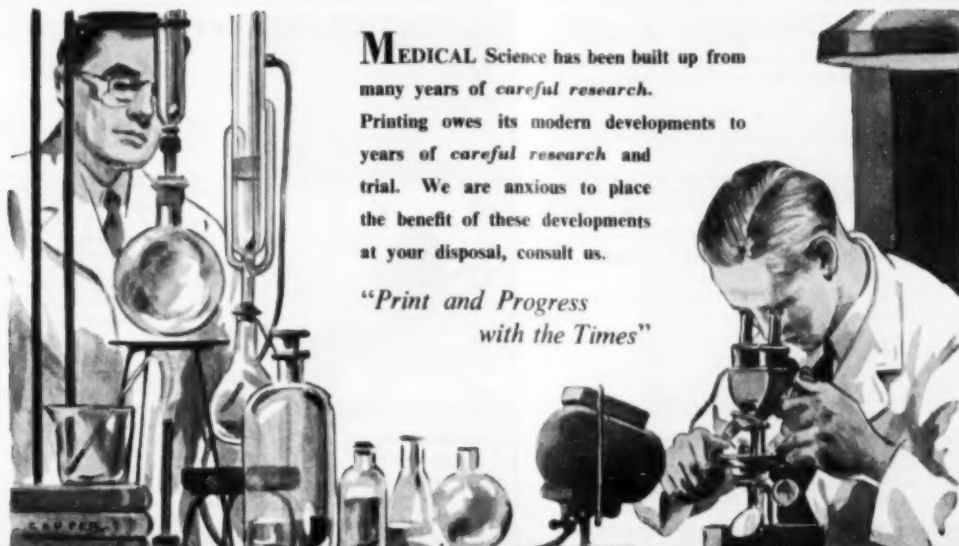
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28th July. 3.30 p.m. Boy (D.H.J.) aged 22 months pulled pot of freshly made tea off table and scalded himself.

9.00 p.m. Admitted to hospital.

GENERAL CONDITION: Crying; restless; pulse 180/min., volume poor. Skin clammy; early burns shock.

LOCAL CONDITION: Scalding of trunk, right axilla and right leg, involving 15% of body surface (Fig. 1). 10.00 p.m. Plasma transfusion started.

29th July. 12.00 a.m. 230 c.c. of plasma given so far. Condition excellent.

12.15 a.m. PLINARY DRESSING. Scald dressed with penicillin cream (400 units per gramme), gauze, cotton-wool and crepe bandages.

1.00 p.m. Condition remains satisfactory. Transfusion stopped after 650 c.c. of plasma had been given.

5th Aug. Temperature normal.

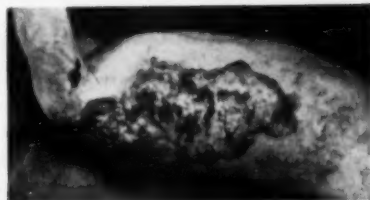
FIRST REDRESSING. Scald clean. Thigh healing. Central area of scald on trunk covered with slough.

14th Aug. SECOND DRESSING; Thigh healed. Large area of complete skin destruction on trunk now apparent as dead collagen overlying early granulations (Fig. 2).

18th Aug. OPERATION. General anaesthetic. Dead collagen and granulations removed. Split skin grafts from thighs applied to raw area. Grafts fixed with a pressure dressing.



Above Fig. 1



Right Figs 2, 3 and 4

Immobilization obtained by applying thin cast of Gypsona P.O.P. (Fig. 3).

25th Aug. DRESSING. 100% take of grafts. Paraffin gauze dressing applied. Temperature still remains normal.

5th Sept. All scalds soundly healed. Discharged home.

22nd Feb. Follow-up. Seen in clinic. Grafts satisfactory. No skin shortage or limitation of movement (Fig. 4).

These details and illustrations are of an actual case. T. J. Smith & Nephew Ltd., of Hull, publish this instance—typical of many—in which their products have been used with success.

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Provincial Administration of the Cape of Good Hope

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Provincial Administration of the Cape of Good Hope

HOSPITALS DEPARTMENT

1. Applications are invited for appointment to the post of medical practitioner, grade C (2 posts), with salary on the scale £1,000 x 50—£1,200 per annum on the fixed establishment of the Victoria Hospital, Lovedale.

2. In addition to the scale of salary indicated, cost-of-living allowance at rates prescribed from time to time by the Administrator is payable to whole-time officials and employees.

3. The conditions of service are prescribed in terms of the Hospital Board Service Ordinance No. 19 of 1941, as amended, and the regulations framed thereunder.

4. The duties attaching to the one post are essentially the care of medical patients and to the other post, the care of surgical patients.

5. The minimum requirements for the posts are five years' practice since graduation of which three years must have been in the practice of Medicine for those applying for the medical post and three years must have been in the practice of Surgery for those applying for the surgical post.

6. The successful candidates, if not already in the Hospital Board Service, will be required to submit satisfactory birth and health certificates.

7. Application must be made on the prescribed form Staff 23 which is obtainable from the Director of Hospital Services, P.O. Box 2060, Provincial Building, Dale Street, Cape Town, or from the Branch Representative of the Hospitals Department at Cape Town (P.O. Box 1487), East London (P.O. Box 13), Port Elizabeth (P.O. Box 80), Kimberley (P.O. Box 618), and Umtata (P.O. Box 202), or from the Medical Superintendent of any Provincial Hospital or Secretary of any School Board in the Cape Province.

8. The completed application forms must be addressed to the Medical Superintendent, Victoria Hospital, Lovedale, and must reach him not later than 15 April 1952. Candidates must state the earliest date on which they can assume duty. Y 248521

Provinsiale Administrasie van die Kaap die Goeie Hoop

HOSPITAALDEPARTEMENT

1. Aansoek word ingewag vir aanstelling in die vakante pos van geneesheer, graad C (2 poste) met salaris volgens die skaal £1,000 x 50—£1,200 per jaar op die vaste diensstaat van die Victoria-hospitaal, Lovedale.

2. Benewens die salarisskaal soos aangedui, is lewenskoste-toelae aan voltydse beampies en werknemers betaalbaar teen tariewe wat van tyd tot tyd deur die Administrateur vasgestel word.

3. Die diensvoorwaardes word voorgeskryf ingevolge die Ordonnansie op Hospitaalraadsdiens nr. 19 van 1941, soos gewysig, en die regulasies daarkragtig opgestel.

4. Die pligte verbonde aan die een pos is hoofsaaklik toesig oor mediese pasiënte en aan die ander pos, toesig oor chirurgiese pasiënte.

5. Die minimum vereistes vir die poste is nagraadse ondervinding van vyf jaar waarvan drie jaar mediese ondervinding moet wees vir kandidaat vir die mediese pos en drie jaar chirurgiese ondervinding vir kandidaat vir die chirurgiese pos.

6. Die geslaagde kandidaat wat nie reeds in die hospitaalraadsdiens is nie, moet geboorte- en gesondheidsertifikaat indien.

7. Aansoek moet gedoen word op die voorgeskrewe vorm Staf 23 wat verkrygbaar is by die Direkteur van Hospitaaldienste, Posbus 2060, Provinsiale Gebou, Waaistraat, Kaapstad, of by die Takverteenwoordiger van die Hospitaaldepartement te Kaapstad (Posbus 1487), Oos-Londen (Posbus 13), Port Elizabeth (Posbus 80), Kimberley (Posbus 618), en Umtata (Posbus 202), of by die Mediese Superintendent van enige Provinsiale Hospitaal of die Sekretaris van enige Skoolraad in die Kaapprovinsie.

8. Die ingevulde aansoekvorms moet gerig word aan die Mediese Superintendent, Victoria-hospitaal, Lovedale, en moet hom nie later as 15 April 1952 bereik nie. Kandidaat moet die vroegste datum meld waarop hulle diens kan aanvaar.

Y 248521

Provincial Administration of the Cape of Good Hope/University of Cape Town:

JOINT STAFF

1. Applications are invited for appointment to a post of Hospital Physician (Radiotherapeutic) with salary on the scale £1,200 × 50—£1,500 per annum, on the Joint Staff for the Groote Schuur Hospital and other teaching hospitals in the Cape Peninsula.

2. In addition to the scale of salary indicated, a cost-of-living allowance at rates prescribed from time to time by the Administrator is payable to whole-time officials and employees. (Present rate: married persons £256 per annum, and single persons £80 per annum.)

3. The conditions of service are prescribed in terms of the Hospital Board Service Ordinance No. 19 of 1941, as amended, and the regulations framed thereunder.

4. The Joint Staff will be required to serve jointly the Provincial Administration of the Cape of Good Hope and the University of Cape Town.

5. The successful candidate will be required to submit satisfactory birth and health certificates.

6. Application must be made on the prescribed form Staff 23 which is obtainable from the Director of Hospital Services, P.O. Box 2060, Provincial Building, Water Street, Cape Town, or from the Branch Representative of the Hospitals Department at Cape Town (P.O. Box 1487), East London (P.O. Box 13), Port Elizabeth (P.O. Box 80), Kimberley (P.O. Box 618), and Umtata (P.O. Box 202), or from the Medical Superintendent of any Provincial Hospital or Secretary of any School Board in the Cape Province.

7. The completed application forms must be addressed to the Director of Hospital Services, P.O. Box 2060, Cape Town, and must reach him not later than 30 April 1952. Candidates must state the earliest date on which they can assume duty.

Y 248518

Provinsiale Administrasie van die Kaap die Goeie Hoop/Universiteit van Kaapstad:

GESAMENTLIKE PERSONEEL

1. Aansoek word ingewag vir aanstelling tot die pos van Hospitaal-natuurkundige (Radioterapie) met salaris volgens die skaal £1,200 × 50—£1,500 per jaar op die Gesamentlike Personeel van die Groote Schuur-hospitaal en ander opleidings-hospitale in die Skiereiland.

2. Benewens die salarisskaal soos aangedui is 'n lewenskoste-toelae teen tariewe wat van tyd tot tyd deur die Administrateur vasgestel word, betaalbaar aan voltydse beames en werknemers. (Teenswoordige tarief: getroude persone £256 per jaar, en enkele persone £80 per jaar.)

3. Die diensvoorwaardes word voorgeskrif ingevolge die Ordonnansie op Hospitaalaarddiens nr. 19 van 1941, soos gewysig, en die regulasies wat daarkragens opgestel is.

4. Van die Gesamentlike Personeel sal vereis word om die Provinsiale Administrasie van die Kaap die Goeie Hoop en die Universiteit van Kaapstad gesamentlik te dien.

5. Die suksesvolle kandidaat moet bevredigende geboorte- en gesondheidsertifikate indien.

6. Aansoek moet gedoen word op die voorgeskrewe vorm Staf 23 wat verkrygbaar is by die Direkteur van Hospitaaldienste, Posbus 2060, Provinsiale Gebou, Waalstraat, Kaapstad, of by die Takvertegenwoordiger van die Hospitaaldepartement te Kaapstad (Posbus 1487), Oos-Londen (Posbus 13), Port Elizabeth (Posbus 80), Kimberley (Posbus 618), en Umtata (Posbus 202), of by die Mediese Superintendant van enige Provinsiale Hospitaal of die Sekretaris van enige Skoolraad in die Kaapprovinsie.

7. Die voltooiide aansoekvorms moet gerig word aan die Direkteur van Hospitaaldienste, Posbus 2060, Kaapstad, en moet hom nie later as 30 April 1952 bereik nie. Kandidate moet die vroegste datum meld waarop hulle diens kan aanvaar.

Y 248518

Provincial Administration of the Cape of Good Hope/University of Cape Town:

JOINT MEDICAL STAFF

1. Applications are invited for appointment to the following posts:—

Department of Radio-diagnosis: 1 post of medical practitioner, grade G—salary £2,000 per annum.

Department of Anaesthetics: 1 post of medical practitioner, grade G—salary £2,000 per annum.

2. In addition to the salary indicated a cost-of-living allowance at rates prescribed from time to time by the Administrator is payable to whole-time officials and employees. (Present rate: married persons £256 per annum, and single persons £80 per annum.)

3. The conditions of service are prescribed in terms of the Hospital Board Service Ordinance No. 19 of 1941, as amended, and the regulations framed thereunder.

4. The Joint Medical Staff will be required to serve jointly the Provincial Administration of the Cape of Good Hope and the University of Cape Town.

5. The successful candidates will be required to submit satisfactory birth and health certificates.

6. Applications must be made on the prescribed form Staff 23 which is obtainable from the Director of Hospital Services, P.O. Box 2060, Provincial Building, Water Street, Cape Town, or from the Branch Representative of the Hospitals Department at Cape Town (P.O. Box 1487), East London (P.O. Box 13), Port Elizabeth (P.O. Box 80), Kimberley (P.O. Box 618), and Umtata (P.O. Box 202), or from the Medical Superintendent of any Provincial Hospital or Secretary of any School Board in the Cape Province.

7. The completed application forms must be addressed to the Director of Hospital Services, P.O. Box 2060, Cape Town, and must reach him not later than 30 April 1952. Candidates must state the earliest date on which they can assume duty.

Y 248520

Provinsiale Administrasie van die Kaap die Goeie Hoop/Universiteit van Kaapstad:

GESAMENTLIKE MEDIESE PERSONEEL

1. Aansoek word ingewag vir die aanstelling tot die volgende poste:—

Departement van Radio-diagnose: 1 pos van geneesheer, graad G—salaris £2,000 per jaar.

Departement van Narkose: 1 pos van geneesheer, graad G—salaris £2,000 per jaar.

2. Benewens die salaris soos aangedui is 'n lewenskoste-toelae teen tariewe wat van tyd tot tyd deur die Administrateur vasgestel word, betaalbaar aan voltydse beames en werknemers. (Teenswoordige tarief: getroude persone £256 per jaar, en enkele persone £80 per jaar.)

3. Die diensvoorwaardes word voorgeskrif ingevolge die Ordonnansie op Hospitaalaarddiens nr. 19 van 1941, soos gewysig, en die regulasies wat daarkragens opgestel is.

4. Van die Gesamentlike Mediese Personeel sal vereis word om die Provinsiale Administrasie van die Kaap die Goeie Hoop en die Universiteit van Kaapstad gesamentlik te dien.

5. Die suksesvolle kandidaat moet bevredigende geboorte- en gesondheidsertifikate indien.

6. Aansoek moet gedoen word op die voorgeskrewe vorm Staf 23 wat verkrygbaar is by die Direkteur van Hospitaaldienste, Posbus 2060, Provinsiale Gebou, Waalstraat, Kaapstad, of by die Takvertegenwoordiger van die Hospitaaldepartement te Kaapstad (Posbus 1487), Oos-Londen (Posbus 13), Port Elizabeth (Posbus 80), Kimberley (Posbus 618), en Umtata (Posbus 202), of by die Mediese Superintendant van enige Provinsiale Hospitaal of die Sekretaris van enige Skoolraad in die Kaapprovinsie.

7. Die voltooiide aansoekvorms moet gerig word aan die Direkteur van Hospitaaldienste, Posbus 2060, Kaapstad, en moet hom nie later as 30 April 1952 bereik nie. Kandidate moet die vroegste datum meld waarop hulle diens kan aanvaar.

Y 248520

Transvaal Provinsiale Administrasie

VAKATURES BY PUBLIEKE HOSPITALE

Aansoek word ingewag van kandidate met geskikte kwalifikasies vir die onderstaande poste by Publieke Hospitale in die Transvaal.

Aansoek moet gerig word aan die Geneeskundige Superintendent of Verantwoordelike Geneesheer van die betrokke Hospitaal en moet volle besonderhede bevat aangaande die ouderdom, professionele, akademiese en taalkwalifikasies, ondervinding en huwelikstaats van die applikant en moet voorts 'n aanduiding bevat van die vroegste datum waarop diens aanvaar kan word.

Hospitaal	Vakature	Salaries	Aanmerkings
Pretoria:	Assistent Chirurg (1)	£1,800 p.a.	Om dienste te aanvaar op 1 Maart 1952. Moet behoorlik gekwalifiseerd wees deur opleiding en ondervinding. Getroud plus (a) hieronder. Ongetroud plus (b) hieronder.
	Kliniese Assistent (Departement van Urologie) (1)	£620—780—820—860	Moet 'n geregistreerde mediese praktisyn wees. Moet bereid wees om op 1 Julie 1952 dienste te aanvaar. Getroud plus (a) hieronder. Ongetroud plus (b) hieronder.

Verre Oos-Rand, P.K. New State Areas

Ongevalle Be- ampte (1) £600 per jaar

Moet 'n geregistreerde mediese praktisyn wees. Getroud plus (a) hieronder. Ongetroud plus (b) hieronder.

- (a) £256 per jaar lewenskostetoelae.
(b) £80 per jaar lewenskostetoelae.

Van persone wat aangestel word, sal verwag word om bevestigende sertifikate in te dien, asook om hulle te onderwerp aan 'n geneeskundige ondersoek by die betrokke hospitaal.

Aansoekvorms is verkrygbaar van die Provinsiale Sekretaris, Departement van Hospitaaldienste, Posbus 383, Pretoria.

Benewens jaarlikse salaris ontvang voltydse werknemers op die oomblik lewenskostetoelae, spoorwegkonsessie en word verlof toegestaan ooreenkomstig die hospitaal verlofregulasies.

Die sluitingsdatum van aansoek vir die poste is 15 April 1952. (34442)

National Hospital, Bloemfontein

VACANCY: ORTHOPAEDIC SURGEON

Applications are invited from registered orthopaedic surgeons for the post of full-time Orthopaedic Surgeon at the National and Tempe Provincial Hospitals, to assume duties on 1 May 1952.

The salary attached to the post is £2,000 p.a., plus cost-of-living allowance.

The post is pensionable, and the appointment is made in terms of the Hospital Regulations as amended.

Applications, giving full particulars regarding qualifications, age and previous experience, together with certified copies of testimonials, must reach the undersigned with the least possible delay.

J. W. Wessels
Medical Superintendent
Z 204583

7 March 1952

Cape Provincial Administration

HOSPITALS DEPARTMENT

VACANCIES: HONORARY MEDICAL STAFF

Applications are invited from registered medical practitioners under the age of 60 years for appointment to the following posts on the honorary staff of the Provincial Hospital, Port Elizabeth:

- (a) Senior Surgeon to the Department of Ophthalmology.
(b) Surgical Registrar (Dental) to the Department of Surgery.
(c) Clinical Assistant to the Department of Paediatrics.

The appointments are subject to the Hospitals Ordinance No. 18 of 1946 (Cape), as amended, and to the rules and regulations of the Department.

Applications, containing full particulars of qualifications, etc., must be addressed to the Medical Superintendent of the Provincial Hospital, Port Elizabeth, to reach his office not later than 19 April 1952.

C. G. Keyter
Branch Representative

Cuthbert's Building
P.O. Box 80,
Port Elizabeth
11 March 1952

2397

Provincial Administration of the Cape of Good Hope

HOSPITALS DEPARTMENT

Applications are invited from registered medical practitioners and dental surgeons for the undermentioned vacant posts at Rondebosch and Mowbray Hospital.

- (1) Honorary Cornet Ophthalmologist.
(2) Honorary Dental Surgeon.

The appointments will be for 5 years, but may be terminated before the end of that period if and when the medical staffing of the hospitals is reorganized.

Applications containing particulars of age, qualifications, experience, etc., with copies of recent testimonials should be forwarded to the undersigned not later than noon on Saturday, 26 April 1952.

I. P. Walton
Acting Branch Representative
27050

58 Loop Street
Cape Town

Nasionale Hospitaal, Bloemfontein

VAKATURE: ORTOPEDIËSE SJIRURG

Aansoek word ingewag van geregistreerde ortopediese sjirurg vir die pos van voltydse Ortopediese Sjrurg by die Nasionale en Tempe Provinsiale Hospitale, om dienste op 1 Mei 1952 te aanvaar.

Die salaris aan die pos verbonde is £2,000 per jaar plus lewenskostetoelae.

Die betrekking is pensioendraend en die aanstelling word gemaak ooreenkomstig die Hospitaalregulasies soos gewysig.

Aansoek met vermelding van ouderdom, kwalifikasies en ondervinding moet vergesel gaan van getertifiseerde afskrifte van sertifikate en getuigskrifte en moet die ondergetekende sonder versuim bereik.

J. W. Wessels
Geneesheer-Direkteur
Z 204583

7 Maart 1952



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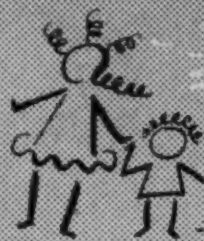
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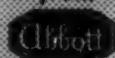
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